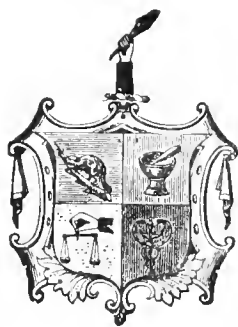


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Canadian Druggist

A MONTHLY JOURNAL

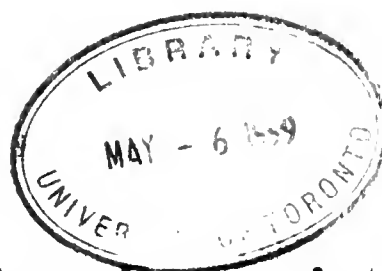
Devoted to the Interests of the General Drug Trade and to the
Advancement of Pharmacy

VOLUME VIII.

January to December, 1896.

W. J. DYAS,

11 $\frac{1}{2}$ RICHMOND STREET WEST, TORONTO, CANADA.



The Canadian Druggist

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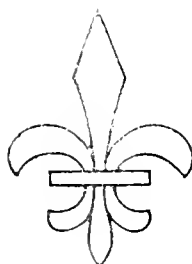
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Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

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TORONTO, JANUARY, 1896.

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Our New Year.

The readers of the CANADIAN DRUGGIST have entered upon another year of the nineteenth century, taking with them the remembrances of the past, striving to gain what is best and most valuable in the present, and trusting to a prosperous future. We might enlarge on many thoughts which come to our mind as to what the year 1895 has done for pharmacy in Canada, and as to what its prospects are for 1896; but our readers need not be told of their past experiences, whether they have been of prosperity and progress or of adversity and misfortune. The past, whatever it has been, should only be to us a remembrance of how difficulties are to be avoided, successes to be pushed forward, and a stimulus to renewed efforts for the future. The pessimist may look at the blackest side of everything: the man who cries "dull times" continually is bound to have them; and the grumbler, who sees no good in anything or anybody outside of himself, will always find something to find fault with; but the pharmacist who is a *man* in the true sense of the word will always find that steady, persevering effort, honest and diligent application, and a spirit of gratitude for what he has, and a determination to make the best of everything—that the world appreciates such a man, and his efforts will be rewarded. We wish our readers prosperity, peace, and plenty. We give them our hand as brother pharmacists in the battle of business. Should we to shoulder we will do our best to stem the tide of evils which beset the trade, and in the year 1896, as in the past, the readers of the CANADIAN DRUGGIST throughout the length and breadth of Canada may depend on us as an ally in all matters for the protection and improvement of their interests.

The late Professor Kluyskens says that figs were used for the first time as cathartics by Hezekiah, 260 years before the time of Hippocrates.

The Condition of the Patent Medicine Trade.

WHAT IT HAS BEEN

The patent medicine trade has been as full of variety as any line of business could well be. The past twenty five years has noted the rise and fall of dozens of prominent preparations, and druggists who desire to know what they were will refresh their memories by going through their patent medicine lockers, and noting the stock they have on hand of Hop Bitters, Warners remedies, Ayer's preparations, Pinkham's compound, purifier and wash, Bristol's, Johnston's, and other sarsaparillas, Cuticura preparations, St. Jacob's Oil and associates, Shoshonee's remedy, Vegetine, Sutherland's Rheumatin, Hamlin's Wizard Oil, Kidney Wort, Hydroline, and a host of others of minor degree. Hundreds of thousands of dollars' worth of these remedies have in the past been consumed by Canadians; yet their light has gone or is going out, and the receipts have gone to make a living for those who furnish paper, ink, composition, and press work, for advertising purposes. The patent medicine advertiser has made fortunes and lost them, and to day comparatively few can be pointed to who have what they commenced with; yet all have contributed more or less to make the retail drug business profitable.

WHAT IT IS

It would be useless folly to assert to-day that the patent medicine trade is satisfactory to either the maker or vendor. While prices remained normal, and the druggist was the sole purveyor, there was a reasonable degree of prestige attached to the article sold; but since the grocer, the general merchant, and the department dealer have become privileged to command them for public use at reduced prices, that condition of things is at an end, or nearly so, and the trade in them has reached a point below which zero comes. It is doubtless true, as has been

frequently asserted, that the only remedies which are to-day paying are inexpensive pills, advertised to produce miracles at fifty cents per box. If the pills cost three or four cents per box, and can be sold retail at fifty cents, there is sufficient scope for profit to enable the proprietor to give practically unlimited advertising contracts, and thereby sustain a demand. If this is, as we have some reason to believe it is, the secret of the new era in advertising, we are certain it cannot last, as sooner or later an exposure will be made which will land such remedies high and dry out of the tide of trade.

WHAT IT MAY BECOME.

It is always difficult to foretell the future; but as it is usually generated from events of the past, a rough guess may safely be made. Considering that past events and present conditions have been from good to bad, we may assume that the latter condition will continue to prevail unless radical changes take place at an early date.

The moment the members of the drug trade realized that patent medicine manufacturers had inaugurated a new system or avenue for the distribution of their goods, that moment they, in turn, adopted new methods of treating the difficulty. First, counter distribution of advertising matter was discontinued, and the manufacturer was put to thousands of dollars expense for travelling and distributing agents; second, organized companies were instituted to manufacture substitute goods for co-operative purposes, and met with considerable success; third, druggists who felt somewhat jealous of co-operative goods saw no reason why articles of their own, of similar import, should not prove supplantive; and to this last cause the patent medicine man of to-day properly ascribes his chief difficulties, as he realizes that he has to pay for the creation of a demand for goods for which the man who fills the order by substitution has to pay nothing.

The foregoing is, in our belief, a true statement in condensed form of past, present, and prospective conditions, and, while it is no part of our duty to determine or point out the policy to be pursued by the manufacturer, we would suggest that he attach his own experience to the above description and carefully consider where he was leading. The drug trade is not as dependent upon the advertised patent remedies as many would suppose. It could exist, and possibly

with greater success than at present, if advertised remedies were unknown; and unless honest, earnest, and combined efforts are put forth by the present manufacturers to rectify matters on the lines now being suggested, we are not sure but the day of extinction for their trade is near at hand.

Review of the Year 1895.

In attempting to select the subject entitled to the first place in the discoveries of the past year, we think there can be little doubt that Argon will be *facile princeps*. Although, strictly speaking, it was discovered by Lord Raleigh, and investigated by Professor Ramsay towards the close of 1894, the whole scientific world received the first announcement with something more than suspicion. Since then overwhelming evidence of its existence has been produced, foreign savants have examined it, and the United States has awarded the discoverers one of its most substantial prizes, whilst the Royal Society has conferred its medals, and the French Academy its Leroy prize. During the past year the progress of serum therapeutics can hardly be said to have been so great as was anticipated. Statistics, usually misleading, have been specially confusing to those who wanted a clear and unbiased reply as to the value of diphtheria antitoxin, tetanus antitoxin, etc. There can be little doubt that we are only on the threshold of the subject, and Goethe's cry, "Light, more light," is particularly applicable at the moment. As long as we are ignorant of the exact chemical nature of the antitoxins and their biological relation and therapeutical properties, the experiments are being made, more or less, in the dark. The endless series of organic derivatives still form a rich harvest to the experimental therapeutists—and the German manufacturers.

THERAPEUTICS.

Contributions to our knowledge of the physiological action of the extract of the suprarenal capsules have been made by Oliver and Schafer, who conclude they are secretory rather than destructive, and that the products act as tonics to the muscular tissues. Moore also examined the same substance and suggests that it is a powerful reducing material, and Navarro found it to consist of globulins and nucleoalbumins, pepsin and peptones being absent. Schafer and Oliver have also proved that extract of pituitary body raises the blood pressure, whilst that of thyroid lowers. This opposite action disproves the assumption that the two glands are vicarious in function. Fraser proved that the antitoxic serum of animals rendered immune to snake bites possesses definite antidotal properties. The snake poison antitoxin of one kind of venom renders an animal resistant to others. Cancer antitoxin is prepared by Richet

from a tumor rubbed up with water and injected into dogs or asses. After a few days the blood was drawn and serum separated. The successful treatment of two cases of cancer was reported in Paris. As syphilis is unknown in animals, Bayet obtained an antisyphilitic serum from the blood of cows and sheep, and treated the disease with injections of this pure serum. After fifteen days the syphilitic eruption had disappeared.

Contradictory reports are still appearing in the veterinary journals as to the diagnostic value of malleine and tuberculin in detecting latent glanders and tuberculosis in cattle. Pickering has shown that the introduction of the chlorine atom into the caffeine molecule considerably modifies the action, caffeine producing far less tonic content of the heart than caffeine. Digitoxin has been recommended by Masius and Corni as the most prompt and reliable principle of digitalis. Its cardiac action is very marked in doses of $\frac{1}{2}$ milligram, whilst Wenzel suggested its administration in the form of an enema, in order to reduce the risk of gastric disturbance. According to Schuey, the combination of guaiacol and Peruvian balsam has given the best results in tuberculosis. Inhalations of the balsam are also recommended. Lederer proposed the use of saligenin instead of salicin, as by this means the patient is relieved of the work of splitting up salicin into saligenin and sugar in the internal economy. Saligenin is now easily prepared from carbolic acid and formaldehyde by Von Heyden's patent. The value of piparazine as a solvent of uric acid stones has been disputed. The physiological action of emetine and cephaeline, the two alkaloids of ipecacuanha, isolated by Paul and Cownley, have been examined by Wild, who finds that cephaeline is the more powerful emetic, acting in doses from 1-12 gram, whilst at least $\frac{1}{4}$ grain of emetine is requisite.

NEW REMEDIES.

To the production of iodoform substitutes there appears no end. Airol is the latest candidate, and is the name given by Ludy to an oxy-iodo-gallate of bismuth. It is voluminous, odorless, and stable, and as a dusting powder for ulcers, etc., has already gained some little reputation. Liebrecht and Rohmann have obtained a soluble silver albumin salt, which they call argonin, and recommend as superior to other silver salts, as it is non-irritating to the mucous membrane, an effective antiseptic, and specially active on species of gonococci. Parachlorophenol has been successfully used in the form of ointment in the treatment of erysipelas. Bismuthol is a phosphosalicylate of sodium and bismuth, and is claimed to combine antiseptic and antipyretic properties. An ointment of 10 per cent. strength and a solution of 4 per cent. have been used in the antiseptic treatment of wounds, skin diseases, etc. Mellinger has introduced the methyl ester of gallic acid, $C_6H_3O_5$, under

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No. 3	" " " " large	10.50 "
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No. 6	" chamois-lined, " 30-33 inch	19.00 "
No. 7	" " " " 34-37 inch	19.00 "

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Nutritive Wine

—WITH—

Cod Liver Oil

A good Tonic is the best cure for a Cold, as well as for General Debility, Impaired Digestion, Bronchial Troubles, etc.; so that with a little attention a good demand should be easily worked up at this season of the year. Until samples are exhausted we will send one bottle (full size) free, with which to sample to your medical men, with every order for one-half dozen. Price, \$8.00.



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LINSEED OIL

TURPENTINE

WHITE LEAD (Genuine)

INSECT POWDER

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the name of gallicin. It is readily soluble in hot water, alcohol, or ether. It is non-poisonous, and has yielded some good results in catarrhal affections of the eyes. It is used as an eye powder by means of a camel's hair pencil. Citrophene is a compound of citric acid with parphenetidin, and is claimed to be an effective antipyretic and anti-neuralgic. It is a white powder, soluble in about 40 parts of water, and incompatible with either acids or alkalis. It is given in doses of 0.5 gram, and large doses are stated to be harmless. New hæmatinic preparations are to be seen in corniferrin, which consists of iron in combination with phosphoric acid and ferrum caseinatum, which is obtained by precipitating a solution of calcium caseinate with a slight excess of a 1 per cent. solution of lactate of iron. Cadmium salicylate has been recommended for the treatment of suppurating ophthalmia, and strontium salicylate as an intestinal antiseptic, yielding better results than salol, etc. In doses of 10 to 15 grains, the strontium salt is stated to be very useful in chronic gouty and rheumatic conditions. Apolysine and chlorosalol have been recently described in our columns.

PHARMACY.

The work of revising the British Pharmacopœia so as to render it of more value in the British colonies is now progressing. A large number of deletions have been published, and a very much smaller number of additions recommended by the English and colonial medical authorities. The committee of pharmacists in whose hands remains the task of devising new and improving old formulas have not suffered from want of advice or suggestions. It is definitely settled that the metric system will be adopted throughout the new edition, but many of the recommendations of medical faddists—such as the desirability of giving therapeutic information, indicating incompatibles, etc.—are receiving scant attention. It is just a question as to how far the Imperial Pharmacopœia will go in meeting the daily requirements of Canadian pharmacists and physicians, as their advice and assistance were neither asked nor offered. Should it fall short, as under these circumstances it may, some concerted action may be taken in order to produce a Canadian appendix or addendum that would make up the deficiency.

The third edition of the Norwegian Pharmacopœia has been published, and, although the names of preparations are in Latin, the body of the work is printed in Norwegian. Assay methods are introduced only for cinchona bark, opium, etc., and extracts, tinctures, etc., are not touched. The doses are given by weight in every instance. A supplement has been published to the last (1884) edition of the French Codex, in order to render official a large number of synthetic remedies, such as sulphonal, phenacetin, anti-febrin, etc.

The British Pharmaceutical Conference held a successful meeting at Bournemouth, and the American Pharmaceutical Association attracted large numbers to Denver.

A Pharmacy Fair, under somewhat too pretentious auspices, was attempted at Boston, Mass., but attracted insufficient support, and so had to prematurely close its doors. A drug trade exhibition in London was more successful, and it is stated that it will henceforth be an annual affair. Amongst the large number of papers bearing upon pharmacy that have been published during the year, the following are perhaps worthy of special notice: Ashby recommended sodium nitroprusside, in the presence of ammonia, as a test for methylated tinctures: 25 c.c. of the tincture are distilled, and the first 5 c.c. passing over are tested, and the production of a red color is due to methylated spirit. Liversage has shown that tincture of lobelia prepared from the herb, previously freed from stems, is considerably stronger in alkaloid and extractive than when the whole herb is used. Barclay stated that the amount of extractive in tinctures varies according to the length of time they have been kept and the extent of the evaporation of spirit. Thus, strong tincture of ginger loses 26 per cent. in about six months. According to Sapin, tincture of iodine should be exposed to the light, as the hydriodic acid and ethyl iodide gradually formed are decomposed by light, with liberation of iodine again. The tincture kept in the dark for a year had lost nearly 20 per cent. of its iodine. Bird suggested an acetic extract of ipecacuanha, prepared by exhausting the drug first with acidulated spirit, and then with water. The two percolates are evaporated to dryness and then mixed. Fluid extract of cubebs, as found in American pharmacies, is stated by Hyers to vary considerably, and indicates that poor cubebs are used, or extraction is not perfect. Dillenbach suggested a menstruum of glycerine one part, water two parts, to obtain fluid extract of wild cherry (ext. pruni virg. fluid), using repercolation. M. Jurgens has given two methods for preparing fluid extract of grindelia. The first is free from resin, as the extract is obtained by hot water, and the second is obtained by percolation with three parts of strong spirit and one of water. Cripps has made a study of standardization of belladonna preparations, and recommends an alcoholic liquid extract to be standardized, and this to form the basis for plaster, liniment, tincture, ointment, etc. Boa considers that the present belladonna plaster might be improved by using the following proportions: resin, 5; card soap, 2; lead plaster, 11; alcoholic extract of belladonna, 2.

Carbolic acid should be kept in aluminium or tin vessels, according to Von Hankó, as less liable to coloration. Aromatic elixir of kola is best prepared with glycyrrhizin and saccharin, in simple elixir of the strength one in ten. Glycerine suppositories made from agar-agar are

said by Lomuller to be more elegant than when made with gelatine as the basis. A German method of making pills of creosotes, guaiacol, etc., is to mix with liquorice powder and mass with glycerine. From the same source emanates the suggestion of peppermint water and syrup to mask the flavor of ichthyol, when given internally. Harding prepares milk of magnesia by precipitating the hydrate by means of hot dilute solutions of caustic potash and magnesium sulphate. The precipitate is washed and suspended in a small quantity of water.

PHARMACOGNOSY.

There has been no diminution in the published researches of last year relating to minor drugs.

Prescott has described some of the native drugs of the Philippine Islands. Dunstan has discovered the active principle—a crystallizable resin, of pellitory. Sanctis proved that conune exists in the stems and leaves of the elder (*sambucus nigra*). The recommendation of *senecio vulgaris* by Murrell, as a remedy for diseases of the uterine system, has probably led Grandval and Lajoux to examine its constituents. Two alkaloids have been obtained, *senecine* and *senecionine*. *Cannabis indica* and *C. sativa* have been investigated by Vignolo, and the alkaloid from the latter found almost inactive, whilst the former yields a product that is highly toxic. The same author has obtained a sesquiterpene from the essential oil of Indian hemp. Palladino claims to have discovered a new alkaloid in coffee, which he has named *caffearine*. Dohme has shown that *jaborandi* leaves, as now found in commerce, are much inferior in pilocarpine to what they were in 1893, and to this is due the high price of the alkaloid. Ergot is still in an unsatisfactory state, and Keller can only obtain one alkaloid from it. Bohringer has described, however, a new active principle of ergot, under the name of *spasmodin*, or *sphacelotoxin*. The structure of *cimicifuga* and that of *veratrum viride* have been minutely described by Bastin. The histology of *ipecacuanha* has been the subject of Greenwich's investigation, whilst he has also reported upon the microscopical examination of commercial powdered *ipecacuanha*. Pfaff and Orr ascribe the active principle of *rhus toxicodendron* to a principle similar to *cardol*, and state that Maisch's *toxicodendric acid* is inactive.

The adulteration of kamala with inorganic matter to the extent of 69 per cent. was reported by Barclay. Cubebs and its adulterations have been lengthily described by Wevre. Senega is also subject to sophistication with the roots of *tristemon perfoliatum*, which does not possess the characteristic keel. The leaves of *empleurum serrulatum* have appeared in bales of buchu leaves, and a chemical examination by Umney showed that they differ in composition. Balsams of tolu and Peru have been found adulterated, and beeswax has been the subject of an

amount of criticism in America and Europe, and some prosecutions in England. Aloin is considered by Serre to frequently contain resin, and its melting point should not be much over 116° C. Dodge and Olcott have published a delicate test for gargon oil in balsam of copaiba. According to Dohme, no aconitine was to be found in the States so pure as to have a melting point of 197° C.

CHEMISTRY.

As mentioned in the opening sentences, argon is the event of the year. Although its discovery will date from 1894, the publication of details rests with 1895. Berthelot stated that argon, when mixed with benzine and subjected to a silent discharge, undergoes condensation similar to the production of ozone from oxygen. Moissan found that lithium is not affected when heated in argon, and that fluorine will not combine with it. Olszewski has liquefied and solidified argon, and since then has liquefied hydrogen.

In a subsequent research for argon in the gases confined in rare minerals Ramsay discovered helium, hitherto an element only known to the solar photosphere, Bayley treated oxygen in two globes by means of the electric spark, and obtained gases differing in density that suggested the gas having been split up.

The application of electricity to the decomposition of salt for the production of chlorine and caustic soda has entered upon the practical stage. The invention of castner has been acquired by a company of which Sir Henry Roscoe is a director, and, having been duly floated, is now producing caustic by this process. There are several other Richmonds in the field, notably the Hargreaves' patent, where carbonate is first produced and soda ash afterwards obtained. Acetylene has been recommended to enrich ordinary coal gas, as it gives a flame of extraordinary luminosity and is easily obtainable from calcium carbide, now yielded in large quantities by the electrical furnace.

A good deal of the ground usually covered in this section has recently been traversed by Dohme, in his address on "The Progress of Chemistry" (CANADIAN DRUGGIST, November, page 252). Reference, however, should be made to the dispute between Freund and Dunstan on the subject of priority in discovering the chemical composition of aconitine. Two formulæ are offered, and neither claimant appears able to prove the other wrong. Umney suggested a method of assaying pure aconitine by means of its hydrolysis and separation of the benzoic acid by ether. But it appears altogether premature as a means of standardizing aconite preparations until we know definitely the composition of the other alkaloids in aconite. Freund has determined the relationship of thebaine to morphine and codeine. Wolfenstein has recognized coniceine in conune, and states it to be seventeen times as poisonous as the latter alkaloid. Miller and Rhode have ad-

vanced a new formula for cinchonine suggestive of its pyridine nature. Oliveri has investigated a number of nicotine compounds and advised a new constitutional formula. Cross and Bevan have contributed a good deal to our knowledge of the chemistry of cellulose.

Wallach is still engaged on terpenes and ethereal oils, his attention at the moment being concentrated on the oils of sage and thuja. Croton oil owes its vesicating power, according to Dunstan and Boole, to a resin which they have not succeeded in crystallizing. Its molecular formula is $2C_{36}H_{56}O$, and it is soluble only in alcohol, chloroform, and ether. Umney has supplied some valuable data respecting the physical and chemical constants of the pharmacopœial essential oils. He has also drawn attention to the unsatisfactory nature of oleum pini sylvestris, as found in commerce. The physical constants of cod liver oil have been given by Parry and Estcourt, but no comparison was made between Norwegian and Newfoundland oils. The same authors have confirmed the acetylation method of detecting adulterations in santal wood oil.

The use of formalin (formaldehyde) as a preservative is extending, and various tests have been devised for its detection. Distillation and treatment of the distillate with nitrate of silver is one of the best. Denigès recommended a solution of resorcin in presence of strong sulphuric acid as a test of nitrites. Leeds determined the acetic acid in vinegar by titration with alkali, using turmeric paper as indicator.

BOTANY AND MICROSCOPY.

Chlorophyll is still the subject of Schunck's investigations, and his experiments with copper salts of phyllocyanin have been described. Several investigators are concerned in the unclear division in the pollen mother cells, as of great biological importance. Loew claims that there is an active albumin in many plants which is much less stable than ordinary albumin of protoplasm. Bokorny has shown that dilute solutions of alkalies or of caffeine have no prejudicial effect on some forms of minute life, whilst distilled water was fatal. Green has contributed a most useful paper on the botany and microscopy of the British Pharmacopœia. He recommends that illustrations should be used where description is of little use, so as to enable pharmacists to recognize the drug. Microscopical characters should be added and micro-chemical tests made use of, such as the application of strong sulphuric acid to the tissues of true cubeb, producing a scarlet color. Blackman has described a method of accurately estimating the evolution and assimilation of carbon dioxide by plants. He found that the stomata alone were engaged, although osmosis may take place if they become blocked. Etiolated plants yield protochlorophyll, which is identical with protochlorophyll, according to Timiriæff. Green stated that diastase in foliage is destroyed largely by electric light or exposure to the sun.

The subject of photography is daily growing more important, and many pharmacists take an active interest in it. The advances made in rapid dry plates and "printing out" papers almost suggest perfection having been obtained. New additions to the already long list of developers are constantly being made, and among the latest are glycine, para-amidophenol, amidol, metol, etc. Some progress has been made in color photography, but so far the best results are those obtained by the three color process. The colors are formed on films, in which silver salts are replaced by other substances, each ray isolating the color common to it. Solutions are made of aniline purple, Victoria blue, and turmeric in alcohol, separately, and then mixed. The paper is allowed to float on the mixture, dried, and exposed to sunlight under a colored positive glass.

Montreal College of Pharmacy.

CHRISTMAS SESSIONAL EXAMINATIONS.

The following is the result of the half session examinations of the Montreal College of Pharmacy, which closed on Monday, Dec. 23, the successful candidates being as follows:

Junior Chemistry—W. A. Smallwood, R. H. D. Benn, Geo. H. Voss, F. J. Lemaistre, L. E. B. Browne, F. W. Horner.

Senior Chemistry—None of the candidates in this class received the required number of points to pass.

Junior Materia—Henri St. Georges, Wilfred Barolet, H. Gënëreaux, J. B. T. Biron, P. G. Mount, T. E. Gagner, A. J. Lapointe, L. E. P. Lemieux, E. Clement, Gaston St. Jacques, Romeo Casgrain, Louis Fortin.

Senior Materia Medica—W. A. Smallwood, D. R. O'Neill, W. F. Roach, James Franakum, R. J. Lunny, Louis Rogaleky.

Botany—A. Lebeau, J. A. Gillespie, J. H. Charbonneau, C. M. DuGay, W. F. Roach, E. R. DesRosiers, W. A. Ayerst.

The closing sessional examinations of the college will take place at the end of March next, when the marks then obtained will be added to the above, and the totals then received will give the correct standing of the respective students at the close of the session.

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This remedy has been tried by Dr. Walle (*Deutsche Med. Zeitschrift*) in fifty-two cases without a single failure. It is made of hydrogen peroxide, sodic salicylate, and sodic lactate, applied with a pencil to the affected portions of the throat, or, when this is not practicable, given as an inhalation. Also used as a gargle, and tablespoonful doses given after each local application, the latter being made every three hours, or every two hours in urgent cases. It is said to act as a rapid disinfectant, loosening and dissolving the false membrane, antipyretics being rarely necessary.—*Mo. Mag. Phar.*

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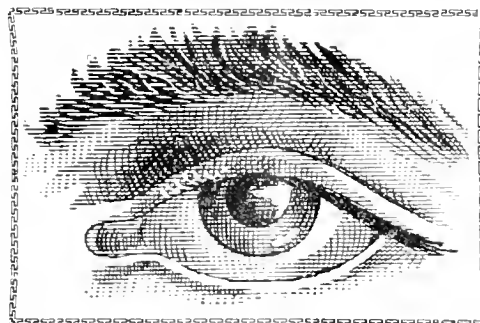
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Trade Notes.

J. McIntyre, druggist, Toronto, Ont., has made an assignment.

Samuel L. Green, druggist, Toronto, Ont., has made an assignment.

W. Geary, formerly of Vancouver, B.C., has moved to Innisfail, N.W.T.

W. Donaghy has purchased the drug business of W. S. Bell, New Edinburgh, Ont.

Grant Bros. have purchased the drug business of G. B. Sutherland, New Glasgow, N.S.

Thompson & Co. have purchased the drug business of R. W. McClung & Co., at Pilot Moand, Man.

Nasmyth & Davis, Brantford, Ont., have closed their business there. Mr. Davis has moved the stock to Tilbury.

J. H. Clements, formerly with Clarke & Co., druggists, Kamloops, B.C., is opening a drug store at Ashcroft, B.C.

In the Philadelphia College of Pharmacy there are fourteen women studying, seven each in the junior and senior classes.

The drug stock of Walter Ashton, Aurora, Ont., is advertised to be sold under mortgage, by auction, January 15th.

Mr. H. Thomson, Mitchell, Ont., has sold out to Mr. Bailey, formerly manager for S. A. Hodge. Mr. Thomson is taking charge of his father's oatmeal mill at Seaforth.

It is claimed that the Meyers Bros. Drug Co., of St. Louis, Mo., is the largest drug house in the world, having a capital of \$1,750,000. They have lately absorbed the Dougherty-Crouch Drug Co., of the same city. Fifty-two travelling salesmen represent them on the road, and they cover nearly every state in the Union.

A drug company, to be known as the Canada Drug Co. (Ltd.), has been organized in St. John, N.B., with a capital of \$100,000, of which a large amount is paid up. There will be three travellers on the road. The place of business is on Prince William street, in the store formerly occupied by Burpee, Thorne & Co., wholesale hardware men.

Students' Dinner.

The annual banquet of the students of the Montreal College of Pharmacy will be held at the Balmoral Hotel, on February 5th. The officers of the Students' Society are: President, J. Genest; vice-president, L. E. P. Lamieux; secretary, P. G. Mount.

Ontario Graduates.

The movements of the graduates of the Ontario College of Pharmacy are always of interest, not only to their former employers, but also to their fellow-graduates

and friends. We have obtained news of the following:

E. A. Walters, class of '95, has taken unto himself a wife, and is manager of a drug business at Sonoma, California.

R. P. Leslie, class of '94, who has been located for the past sixteen months at 936 Sixth Avenue, New York city, as head dispenser at the Cassebeer pharmacy, came to Toronto last August on a flying trip, returning with his bride, Miss Louise Mackay, the charming vocalist who so frequently delighted the Toronto public with her solos.

A. T. Gledhill, class of '95, is plying the mortar and pestle at Port Huron. He recently passed through this city, appearing as hale and hearty as when attending the O.C.P.

W. McDowell, jr., class of '95, who gave such useful Christmas boxes, is rolling pills at 94 Superior street, Victoria, B.C.

Major Kelly, class of '95, is faithfully managing a drug business in Meaford. He spent a few days in town recently, calling frequently at the O.C.P. to encourage the juniors during their preparation for the recent examinations.

The following recent graduates of the O.C.P. are occupying responsible positions as dispensers in the United States and in the Northwest:

A. W. Urquhart, class of '95, 255 Sixth Avenue, New York city.

W. J. Kirkland, class of '95, at 463 Hudson street, New York city. M. B. Annis, class of '94, at same address.

J. A. Smith, class of '93, has severed his connections with Fraser & Co., and is now engaged with Eimer & Amend, 18th street and Third Ave.

Norval Smith, class of '95, is with Chumar & Son, at 23rd street and Eighth Ave.

A. E. Hotson, class of '95, is now chemist for the International Phosphate Company, Union Square, New York city.

E. W. Scales, class of '94, is at 38 Eighth Ave., New York city.

C. T. Laird, class of '95, 154 W. 22nd street, New York city.

J. H. Seagers, class of '94, is in Newark, N.J.

G. F. Campbell, class of '95, is with Stoddart Bros., Seneca street, Buffalo, N.Y.

J. C. Morrison, medallist, class of '95, is with Stearns & Co., Detroit, Mich.

A. M. Dowsley, class of '94, is with F. E. Brownell, Orange, N.J.

E. B. Stevenson, class of '94, care of H. A. Dupee, Fairfield Ave., Bridgeport, Conn.

T. H. Powell, class of '94, care of F. H. Baxter, South Norwalk, Conn.

W. D. Simmons, class of '93, at 520 Court street, Beatrice, Nebraska.

H. W. Mitchell, class of '94, is managing his father's store at Winnipeg, Man.

J. C. Grosch, class of '95, is in New York city.

Crane, class of '92, is in Brooklyn, N.Y.

J. J. Johnston, class of '94, is in Lethbridge, Alberta.

The following graduates of '95 are located in Montreal:

O. A. McNichol, with John Lewis, 2613 St. Catherine street.

J. A. Thompson, care of Kenneth Campbell & Co.

A. E. Maret, with J. A. Hart.

Otto Fowler, at Macmillan's pharmacy.

D. Ballingall, class '95, located at Paris, Ont., with P. E. Scott.

J. A. Jameson, class '94, located at Rodney, Ont.

Richard Henderson, class of '95, care of G. A. Sherrin, Essex, Ont.

L. B. Ashton, medallist, class of '94, is superintendent of the manufacturing department of J. J. McLaughlin, aerated water factory.

Harry Eagleson, class of '95, is with N. G. Love, Yonge st., city.

Harry A. Rowland, class of '95, is dispenser at Dr. Gullen's pharmacy, Parliament street, city.

John Lucas, class of '95, recently purchased the pharmacy owned by Mr. Turquand, class of '94, and the latter has sought the sunny clime of southern France in quest of better health.

Newton H. Brown, class of '95, who is filling a responsible position in the manufacturing department of Parke, Davis & Co., at Detroit, Mich., spent the Christmas holidays in Toronto. He is very much pleased with his present occupation, and is receiving an excellent experience in pharmaceutical manufacturing on a large scale, for which his training at the O.C.P. well fits him.

V. Mundy, class of '93, has severed his connection with the prescription pharmacy of Dugan & Merritt, and now represents the Arlington Chemical Company on the New York and Chicago route.

Harry Eagleson, class of '95, the recipient of the O. C. P. gold medal for general proficiency, and of the faculty gold medal in pharmacy, recently received the "John Roberts Scholarship Fund" of \$100 in cash. Although called a "Scholarship Fund," we can hardly understand in what respect it becomes a scholarship; certainly a misnomer.

Richard Henderson, class of '95, the recipient of the faculty gold medal in chemistry, received the John Roberts gold medal.

FLUID EXTRACT OF COCA.—Investigations instituted by L. P. Kebler (*Am. Jour. Phar.*) show that a 65-per-cent. alcoholic menstruum extracts the alkaloids better than diluted alcohol, while a moderately fine powder is better adapted for exhaustion than a coarser one.

ADULTERATED CASSIA OIL.—Cassia oils adulterated with resin and petroleum have made their appearance on the market. The aldehyde content of all the Chinese brands is very low, and is conclusive evidence of sophistication, and a new "blend" is suspected.

Pharmacy in England.

Strychnine for Phenacetine Responsibilities of Pharmacists—Accessories to Enema Syringes—Vaseline and Wool Fat—The Liniments of the Pharmacopœia.

(From Our Own Correspondent.)

Some six months ago I reported in these columns the unfortunate fatal accident that occurred at Birmingham through the dispensing of strychnine for phenacetine. The sequel has now taken place. The widow of the unfortunate man who received the fatal dose sued both the chemist and the wholesale druggist, and has received damages to the extent of \$14,000 from the wholesaler, whilst the chemist was practically absolved from blame. No one reading the account of the trial could help feeling that Messrs. Wyley, Limited, the wholesale druggists concerned, were very ill-advised in allowing the case to come to court. Whatever may have been the true facts of the case, the sympathy of juries is always expressed in a solid manner, and generally at the expense of the wealthiest of the defendants. This is daily seen in cases coming under the employer's liability and where insurance societies are concerned. If there had been any tangible proof that the error rested with the chemist alone, Messrs. Wyley would, no doubt, have been right in resisting the liability as reflecting otherwise upon themselves; but after the acquittal and exoneration of the chemist by a coroner's jury, it was rather late in the day to take up such a line of defence. The principal misfortune of this trial is the revival in the minds of the public of such an unfortunate event, and the opportunity it gives to the daily newspapers to pass damaging comments upon pharmacists as a body. One journal has surpassed itself by gravely suggesting that the pharmacist should not be allowed to absolve himself by proving that he sold an article exactly as he received it from his wholesaler, but that he ought to be bound to know what he is selling. From the arm chair theory this point of view is admirable, but practically it is absurd. A druggist would have to spend the greater part of his days in his laboratory—if he had one—testing his drugs, etc., in order to fulfil this requirement. Even then his task would not be done. If this theory has to be carried out to its legitimate conclusion, it would not be enough for the pharmacist to guarantee that the article, for instance, was phenacetine, but he must be prepared to guarantee that it contained no other body besides phenacetine. Then only could his task be said to be completed. Perhaps this same editor would suggest that there still remained one other test that the pharmacist should be compelled to apply, that he should take the first dose of every medicine himself.

Messrs. Reynolds & Branson, of Leeds, have introduced another useful accessory to the necessary enema. Some time ago they devised a rack so that an enema

syringe could be suspended, and not left curled in a box so as to produce the inevitable kink, together with a drip tray attached, into which the syringe drained. Now they are introducing a registered basin enema clip that serves a two-fold purpose—of retaining the tail end of the syringe under the water, and also of providing a rest for the other end, when not in use. Their ingenious pill-box and bandage shoot has been widely recognized as a long felt want, and is simply invaluable in hospital wards.

It looks as if the revisers of the B. P. addendum were more perspicuous than at first appeared, when they declined to put lanoline into the pharmacopœia under its registered name, but adopted *adepts lane* instead. By this means the door was left open to any other wool fat being used should it answer the B. P. tests, which were avowedly based upon lanoline. The event thus anticipated seemed a long way off when, some two years ago, Messrs. Richardson, of Leicester, Eng., defended an action for infringement of the lanoline patent and were defeated. From the judge's remarks it was evident that wool fat *per se* could not be protected, but that the incorporation of water with it was a new discovery that could be patented. Since then the Bremen company, rejoicing in the elegant title of Norddeutsche Wollkammerei & Kanim-Garnspinnerei, have introduced an *adepts lane* which they claimed to be purer than lanoline. Whether this claim were true or not, it certainly had a lower melting-point than lanoline, and was much less sticky in consequence. But for many practical purposes it did not seem to catch on, probably because its appearance was more suggestive of petroleum jelly than wool fat. But it has now been much improved, and the hydrous preparation has the clotted cream appearance of lanoline, and is altogether an excellent article. The lanoline proprietors in Germany did not fail to notice the advent of this competitor, and lawsuits have been apparently meandering on for some time, but, according to the N.W.K., these have now been settled, and their brand is to be left undisturbed for the future. As their product is some 16 to 20 cents per pound cheaper than lanoline, it will, doubtless, fill the place of the latter article when *adepts lane* is ordered, provided the pharmacopœial authorities revise the melting point in the next edition.

It is fairly safe to say that wool fat is not employed generally so much as its value really merits. In cold cream, eczema, and healing ointments, it is a splendid addition, and has been recognized by the leading medical authorities. Perhaps its price has been the cause of its not being more often employed; but the introduction of the N.W.K. brand is probably only a step to the advent of much cheaper brands, and soon we shall have as much variety to select from as we now have of petroleum jellies.

The *Pharmaceutical Journal*, rather late in the day, has followed the lead of other journals, and instituted a series of critical articles upon the preparations and formulæ of the British Pharmacopœia. Last month, as I reported, ointments were dealt with, and now the B. P. liniments have come in for review. The author, unlike the instance quoted in the case of other journals, remains unrevealed. Liniment of aconite is stated to possess a formula that does not appear to be capable of improvement. It is quite evident that the author has never made this liniment, or he would not make such a rash statement. The loss of spirit in its manufacture is very great, and a far better plan would be to adopt the method of making a strong fluid extract and dissolving the camphor in the product. This can best be accomplished by macerating the powder with a small quantity of spirit for two days, percolating with more spirit until about three-fourths of the quantity required is obtained. This is set aside and the remainder of the spirit forced through with water, the spirit recovered, and the extract dissolved in the first liquor, the camphor added, and the whole brought up to the proper quantity with more spirit, and filtered. The loss in this way is reduced to a minimum. Soap liniment is another absurdity that the author imagines cannot be improved upon. Perhaps he is hardly aware that there is not a hospital in the kingdom that follows the B. P. formula, and very few wholesale druggists, to judge from the products they send out. Soft soap, in spite of the variable amount of moisture, is always employed instead of hard soap, as the greater part of the latter is quite insoluble at ordinary temperatures. A useful hint, worth remembering, in the case of liniment of chloroform, is to dissolve the camphor in the chloroform and add to the oil. In this way the camphorated oil is made in the preparation, so that its separate manufacture is unnecessary. This suggestion first emanated, I believe, with Mr. Squire, but it is so frequently overlooked that it seems worth while to revive it. Turpentine liniment will always be troublesome until the revisers determine whether they desire a thin or thick emulsion. It is easy enough to make either by a slight manipulation of the proportion of water in the present formula. So far we have heard nothing appreciative of the suggestion that all liniments should approximate to the soap liniment of iodide of potassium. The public unquestionably prefer a liniment that can easily be rubbed in, and those of a consistency more resembling ointments are in little favor. So that probably we shall hear no more of this ridiculous suggestion. The author concludes his paper with the remark that there is no liniment in imitation of Elliman's embrocation in the pharmacopœia; at least that is the inference when he refers to an egg emulsion of camphor and turpentine with acetic acid vinegar.

3 GOOD SELLERS

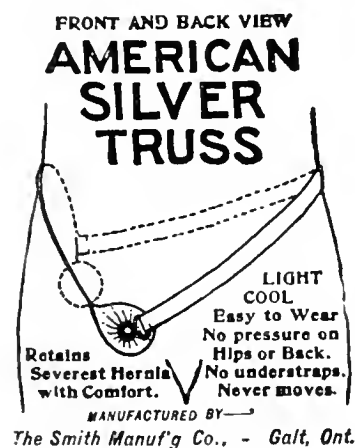
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PAY YOU WELL. PLEASE YOUR CUSTOMERS
ATTRACTIVE COUNTER ARTICLES

Order Sample $\frac{1}{2}$ dozen from your wholesale house to come with next order.
We supply Samples for free distribution with first orders.

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The
Silver
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IS A NEW INVENTION,
NEW IN PRINCIPLE,
NEW IN DESIGN,
NEW IN APPLICATION,
and the MOST PERFECT KNOWN.

The great success of this Truss in holding with comfort all kinds of hernia, whether adults, youths, or infants, all over Canada, the United States, and Europe, is phenomenal. They have been adopted by leading hospitals, surgeons, and rupture specialists of the United States, and by Westminster and Guy's Hospitals, London, Eng. No greater recommendation could be accorded any appliance than its adoption by the physicians and surgeons comprising the staffs of these hospitals, which rank among the largest and best in the world.

MANUFACTURED BY
THE SMITH MANUF'G CO., GALT, ONT.



For the Destruction of Ticks, Lice, Mange, and
all Insects upon Sheep, Horses, Cattle,
Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc

Removes Scurf, Roughness, and Irritation of the Skin,
making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

27 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at \$1.00. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.



CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing
Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and \$1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton and London, Ont., and Winnipeg, Man.

**TOILET BRUSHES**

TOOTH
HAIR
CLOTH
AND
NAIL

BRUSHES

NAIL CLEANERS AND EAR SPONGES
FROM BEST FRENCH MAKERS

Tooth Brushes from \$3.50 to \$30 per gross.
Hair Brushes from \$1.25 to \$20 per dozen.

Over one hundred sizes of each in stock,
or on the way.

We are headquarters for these goods. (Can send samples to
price by mail, or small range by express.)

IT WILL PAY YOU

To write us for quotations

MEAKINS & CO.

MANUFACTURERS AND IMPORTERS
OF BRUSHES.

313 ST. PAUL STREET, MONTREAL.

Attractiveness

In the make-up of a package goes a long way
toward selling it.

"Surf" Sea Salt

Is first of all a pure salt, a genuine salt. The
package is handsome, easy to handle and ap-
propriately decorated. Sells at popular prices,
and pays the dealer good profits. A trial
order solicited through your dealer.

TORONTO SALT WORKS, Toronto, Importers.

ALL KINDS OF . . .

CRUDE DRUGS.

-- SPECIALTIES OF --

**FREDK. GRAF, DRUG
MERCHANT,**

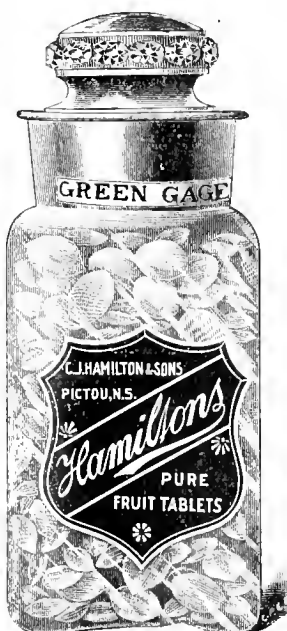
65 FENCHURCH ST., LONDON, E.C.

Established 1886. Prices and samples on application.

Fine Fruit Tablets**ENGLISH FORMULA
TABLETS**

Have been our specialty
and have been a success.
Packed in elegant Flint
Glass Jars, large glass stop-
per, the finest package in
the Dominion. Also in
round jars, similar to Eng-
lish, but made two inches
shorter to fit the ordinary
shelf. A large variety.
List of flavors and prices
on application.

**G. J. HAMILTON
& SONS,
PICTOU, N.S.**



W.A. GILL & Co. COLUMBUS, OHIO, U.S.A.

PLAIN, LACQUERED AND DECORATED

**BOXES
DUALS**

MAKE THE BEST
SEAMLESS TIN

• IN THE MARKET •

For sale at Manufacturers' Prices by the leading whole
sale druggists and druggists' sundrymen
throughout Canada.

Complete Illustrated Price List free
on Application

A poor wheel is like a poor horse—it costs more than it's worth to keep it. In the MONARCH the necessity of repair has been reduced to a minimum. Its strength, lightness and beauty make it a marvel of modern mechanical skill. The

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is undoubtedly king of bicycles. A wheel that you can depend upon in any emergency. Made in 4 models. \$85 & \$100. Send for Monarch book. MONARCH CYCLE MFG. CO., Lake and Halsted Sts., CHICAGO.

Branches—New York, San Francisco, Portland, Salt Lake City, Denver, Memphis, Detroit, Toronto.

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P. R. WRIGHT, Proprietor.

A DRUGGIST'S SPECIALTY.

**Curtis & Son's
Yankee Brand
Pure Spruce Gum**

Is meeting with the success
its high qualities merit.

A TRIAL ORDER SOLICITED.

**CURTIS & SON
PORTLAND, ME., U.S.A.**

Correspondence.

The Editor does not hold himself responsible for the opinions of correspondents.

Correspondents must in all cases send name and address, not necessarily for publication.

Editor CANADIAN DRUGGIST :

DEAR SIR,—Much has been said, through the medium of the CANADIAN DRUGGIST, mostly by editorials, regarding price-cutting, but always with regard to the upholding of old standard prices, and, with your permission, I would like to state a few points from a contrary position, as well as to justify my actions, as reported in a previous editorial of the CANADIAN DRUGGIST, *i.e.*: "A druggist in one of our western cities, in starting a new business, has used the cut-rate as his drawing card," etc.

Although remote from you in one sense, but yet near in this and others, I have seen the report of the Retailers' Association—a laudable union for purposes of fellowship and thought, but useless in the interest which it is promulgating. It is utterly impossible, as well as impracticable, to imagine that the old-time methods of the drug profession will answer the requirements of to-day. It was once when trades-people and professions could command a higher price for goods sold and services done; but the centralization of trades and increased competition of these times are bound to affect the drug trade, as well as more mundane occupations, and the one who is quickest to adapt himself to this environment is the one who will survive. One will do the business of four or five, as it will require more goods to be sold at a less profit for maintenance; and the surviving ones will have to compete in patent medicines as a medium of advertisement, to be on a par with other centralized or department stores. The evil will not be great, for as many drugs will be sold, and when a man begins to lose he will run off his stock and go at something more profitable, thus remedying two evils—the overcrowding of the profession and prejudices of the public against high prices. The old-time method of charging seventy-five cents for a prescription, fifty cents for time, experience, and water, and twenty-five cents for a good average profit on drug and bottle, will have to be substituted for the honester and better method of charging twenty-five cents for the same. The druggist not entering the arena of protection is the one who will have the start in the survival of the fittest, both by run and advertisement.

It is not protection we want against department stores, but free competition. In the first place, no legislature would prohibit their trading in drugs, and as long as there are druggists whose avarice and cupidity are greater than their professional honor and foresight, so long will we have to compete with such, which virtually means annihilation to the drug trade and a meagre existence; as a profession, likened to doctors' assistants.

Therefore it may be well to exercise a little foresight in establishing a protection, and within this a fabric greater than at present, but which eventually must fall and crush many more than at present.

The drug trade is sure to follow in the evolutionizing of our trade systems, and it only remains for those with clearer perceptions to forestall it, with material profit to themselves.

Yours truly,

J. N. WOODWARD.

622 to 626 Westminster Ave.,
Vancouver, B.C.

Editor CANADIAN DRUGGIST

SIR, An article appeared in your December number in reference to our attempt to stop McKendry & Co. cutting the price of Dr. Chase's remedies. That article is calculated to do us much harm. The reference you lend is that our attempt was not a genuine one, and that the articles which appeared in the various papers were inserted by us as advertisements.

In both your suppositions you err. Our attempt was genuine. You will readily understand that where prices are cut below wholesale figures it must necessarily injure the wholesale business. As for causing the insertion of the items in the press, the annexed documents speak for themselves.

We first observed the article you refer to in the *Toronto News*, and were so pleased at its tone that we asked the *Globe* and *Mail Empire*, papers in which we advertise very largely, to notice the matter also. That they have charged for these references we do not know. But if they have, they will certainly be paid.

These are the facts of the case and the only foundation for your article. We regret exceedingly that you did not take the trouble to ascertain the real state of affairs before publishing the article in question, and trust you will give this correction as prominent a place in the CANADIAN DRUGGIST as you gave the article against us.

The following documents speak for themselves.

Yours truly,

EDMANSON, BATES & Co.

Toronto, January 4, 1886.

[Copy]

WM. DOUGLAS, Esq., Manager *News*.

SIR,—An article appeared in the *News* early in December *re* our attempt to prevent J. N. McKendry & Co. selling Dr. Chase's remedies below wholesale prices.

In a comment on that article the CANADIAN DRUGGIST infers that we caused the insertion of it as an advertisement. As far as we know, the first reference to the matter appeared in the *News*.

Will you kindly say whether or not it was an advertisement, and what connection we had with its insertion.

Yours truly,

EDMANSON, BATES & Co.

Toronto, Dec. 28th, 1895.

Messrs. Edmanson, Bates & Co., 45 Lombard Street,
Toronto.

DEAR SIR,—In reply to yours of Dec. 28th, I have made full inquiries. The item about your firm and J. N. McKendry & Co. was an ordinary piece of news. It was not paid for by anyone.

The inference the CANADIAN DRUGGIST places on it is wholly without foundation. I regret very much that you should have been unintentionally made the subject of unjust suspicion.

If this letter is not sufficiently strong to satisfy the CANADIAN DRUGGIST, I have no objection to giving an affidavit setting forth the above facts, if necessary.

The News Printing Co.

WM. DOUGLAS, Manager.

Toronto, Dec. 29th, 1895.

[Copy.]

J. J. Crabbe, Esq., Manager

DEAR SIR,—Your paper early in December had a comment on our attempt to prevent McKendry & Co. cutting the price of Dr. Chase's medicines. The CANADIAN DRUGGIST assumed that the article in question was published as an advertisement by us. As we do not desire to rest under this imputation, would you oblige us with the facts in a way that we can publicly use?

Yours, etc.,

EDMANSON, BATES & Co.

December 30th, 1895.

Messrs. Edmanson, Bates & Co., 45 Lombard Street,
Toronto.

GENTLEMEN,—The article you refer to was not published as an advertisement—was not paid for by you or any other person. It was never charged to your account, or McKendry & Co., nor will it be.

Respectfully yours,

The Evening Star Printing and Publishing Co. (Ltd.)

H. R. H.

Toronto, January 4th, 1896.

The above letters speak for themselves, and any comment on them is unnecessary. Our readers will see that they fully justify our article in the December issue.

"Fellitin" is the name applied by K. Fr. Tollner (*Pharm. Ztg.*) to a "natural" medicinal soap, prepared from bile, and recommended against chilblains. Fresh bile has long been used, in certain portions of Europe, as a domestic remedy against chilblains; but the very unstable qualities of the article, and the difficulty with which it is obtained sufficiently pure, have prevented its more general employment. Fellitin appears to be bile especially prepared as a remedy against this annoying complaint. It is said to be nearly odorless, and very stable.—*Merck's Report*.

A new bottle is made which indicates the hour at which the medicine should be taken

Lady Pharmacists in Russia.

After Hungary, Russia. The present Tsarina is a strong partisan of higher education for women, and it is said that in consequence of her expressed wish the question of the admission of woman students to the examinations of pharmacy at the University of Jurjev (Dorpat) has been brought before the council of that organization. This is not the first time that the question has been discussed by that body, for some years ago a proposal in favor of throwing the profession of pharmacy open to women was rejected by the council, mainly at the instance of the professor of pharmacy, Dragendorff, who declared that his faculty was over-filled already. The present professor of pharmacy, Kondakov, is strongly against the admission of women, but several members of the council spoke in the opposite sense. It is now stated that Professor Kondakov is about to vacate his post, whether in consequence of the woman question, or because he had had rather the worst of it in a bitter scientific war which he has waged with Professor Tichomirov, of Moscow, is not known.

Commercial Travellers in Russia.

The London Chamber of Commerce has called the attention of this department to the following telegram which appeared in the English press: "In future, foreign commercial travellers will only be permitted to engage in trade in Russia when provided with an authorization by their respective firms, in order that the latter may come under the provisions of the Russian civil law. Commercial travellers are also to pay a special tax." Her Majesty's Minister at St. Petersburg, having been requested to make inquiries on the subject, now reports that new regulations on commercial travellers are contemplated in Russia, and that they will probably be such as were described in the press telegram above mentioned; but they will not come into operation before May or June next. Certificates issued to commercial travellers by chambers of commerce in the United Kingdom will continue to be accepted, and endeavours will be made by the Russian authorities to assimilate the form of certificate to that now used by the London Chamber of Commerce.—*Board of Trade Journal*.

Brains in the Finger Ends.

The blind, as we all know, have the sense of touch most singularly sensitive. A writer in a medical contemporary now cites the case of a post-mortem examination of a blind man which revealed the fact that in the nerves at the ends of the fingers well-defined cells of gray matter had formed, identical in substance and in cell formation with the grey matter of the brain.—*Science Siftings*

Medico-Pharmaceutical Code of Ethics.

The value of a specific code of ethics, founded upon broad principles, is attested by the experience of all nations and professions. "To do right," it may be said, comprehends everything in ethical conduct, but in what does "doing right" specifically consist, as applied to the relations of the individual to his profession, or of one allied profession to another? The New Jersey Pharmaceutical Association has endeavored to answer this question by the formulation of certain propositions which are to be submitted to the state medical society as a basis for agreement. These rules are, for the most part, terse, moderate in tone, and just. Both because of their intrinsic interest, and that they may serve as suggestions for similar action in other states, we present them in full:

PROPOSITIONS.

- (1) Ethical principles or standards of right conduct exist irrespective of their formulation or codification.
- (2) Ethical rules are calculated to elevate standards of moral conduct and to foster a spirit of harmony between professional men.
- (3) A code of ethics is designated, not only for the restraint of those who are actuated by unworthy motives, but for the guidance of those, also, who seek to be governed in their actions by high and true principles.

THE DUTIES OF THE PHYSICIAN TO THE PHARMACIST.

- (1) The physician has no moral right to discriminate in favor of one pharmacist to the detriment of another, except for dishonesty, incompetency, or unscientific methods of work.
- (2) The physician is never justified in receiving from a pharmacist gratuities in return for patronage, in depositing secret formulas with an individual pharmacist, or in jeopardizing, by word or deed, his professional reputation.
- (3) The physician may sometimes find it an advantage to the patient to dispense the medicine, yet, in the main, it must be regarded as a subterfuge and a hindrance to all interests involved. The physician should, if practicable, avail himself of the superior technical skill of a trained pharmacist in the preparation and dispensing of medicines.

THE DUTIES OF THE PHARMACIST TO THE PHYSICIAN.

- (4) The pharmacist who recommends drugs or medicines, for specific remedial purposes, either directly or through the avenues of advertisement, thereby exceeds the limits of his profession, and commits an act unworthy of his calling.
- (5) The pharmacist who consents to diagnose disease or prescribe for patients, except where emergencies arise, without a proper medical training, assumes responsibilities for which he is not quali-

fied, and justly incurs the disapproval of physicians.

(6) The pharmacist transgresses his true province when, for commercial purposes, he issues to physicians printed matter setting forth the therapeutic indications for the use of drugs or medicinal preparations. The constituents of a drug or compound, together with its chemical and physical properties, should be a sufficient guarantee of its utility.

DUTIES OF THE PHYSICIAN AND THE PHARMACIST TO THE PUBLIC.

(7) The combined efforts of the physician and the pharmacist are required to protect the public from the nostrum maker, the pseudo-scientific pharmacist, the sectarian physician, and the drug vendor; and the two should be in continual alliance to demand the extermination of these commercial and mercenary institutions.

(8) The physician and the pharmacist should, as far as possible, limit the multiplication of manufactured proprietary compounds. It must be regarded as reprehensible to encourage the use of these remedies to the exclusion of those which are official in the pharmacopoeias. It is also their plain duty to discourage the use and sale of all medicines which lead to baneful drug habits.

(9) The best interests of the patient are undoubtedly conserved by the custom of physicians to practice rational therapeutics, to the exclusion of those methods which tend to the use of many remedies, or those of unknown composition, and the supreme effort of the dispensing pharmacist should be to complete the circle of therapeutics by supplying the demands of experimental and clinical teaching with eligible and trustworthy preparations.

The above rules cover pretty nearly all questions affecting the welfare of the pharmacist and druggist.—*Western Druggist*.

Peppermint Oil as an Antiseptic.

A native doctor, in the *Indian Medical Reporter*, recommends peppermint oil as an antiseptic. He says its utility is beyond question. He has tried it in every kind of open ulcer, and it has proved most efficacious. He has a liking for oil of cinnamon for the same purpose. Either that or peppermint oil has many advantages, he avers, which should ensure them a trial, and help to dispose of the presence of carbolic acid and iodoform, both of them somewhat evil-smelling articles. As far as odor is concerned, there can be no question as to the pleasant nature of the change.

The new gas, argon, appears from the latest researches to be present in atmospheric air to the extent of 0.935 on 100 volumes of air, or nearly 1 per cent. Its properties are exceedingly similar to those of nitrogen.

About Cough Drops!

Should Druggists handle those lines every Confectioner and Grocer sells?

Should Druggists drive the trade to the Confectioners by limiting their line to the nauseous and old brands that the public are tired of?

Why not carry and push the sale of

Honey and Horehound Cough Drops

when they sell well, and are sold only to the Drug Trade?

Mr. J. S. Armitage, Paris, Ont. writes :
"Send another pail of those Honey and
Horehound Cough Drops at once. I sold
the first pail in only ten days."

It will pay you to use our five and ten cent sizes of folding cartons to encourage the sale of Cough Drops ; and advertise your Cough Syrup on the back of them.

LAWSON & JONES

LONDON, CANADA.

Have You

Somerville's Pepsin Gum ?

It is the Gum the others are selling.

It is admitted to be the best Pepsin Gum made in Canada.

Our Carving Set Premium Packages are having a great sale.

C. R. SOMERVILLE

LONDON, ONT.

Harris H. Fudger

TORONTO.



SPRING, 1896



Our many friends and customers, to whom we wish a prosperous New Year, will be pleased to learn the following well-known Salesmen will represent this house for 1896 :

MR. E. B. ANDREWS

MR. W. E. BLAKE

MR. R. W. EVANS

MR. JAS. ANDERSON

MR. W. J. ANDERSON

MR. J. H. WOOD

MR. J. H. GALLAGHER

No pains have been spared to have them fully equipped, and no merchant can afford to place his orders without first seeing their line.



HARRIS H. FUDGER

Wholesale

FANCY GOODS AND WOODENWARE, FIELD
SPORTS, WHEELED GOODS, BABY CAR-
RIAGES AND BICYCLES, DRUG-
GISTS' AND STATIONERS'
SUNDRIES,

50 Yonge Street, - Toronto.



"Blue Seal"
BIRCH
BEER

(For Soda Fountains) is
THE COMING DRINK

for it gives unbounded satisfaction to both the dealer and his customers. It is prepared from perfectly healthful materials and has, even to the last drop, that always-to-be-remembered flavor of the real herbs, barks, and roots, fresh from the woods. It is guaranteed to be a non-alcoholic, temperance drink, which can be freely used by both old and young with invigorating results. Its regular use promotes digestion and alleviates dyspepsia, and it is therefore a winter as well as a summer drink.

Send To-day for Free Sample *and see what a delightful draught of super-excellent Birch Beer you can prepare. Complete directions always given.*

Blue Seal Genuine Birch Beer Extract.
 \$1.00 for pound, \$3.75 for five pounds,
 and \$5.00 for gallon bottles.

HANDSOME SHOW CARDS WITH EVERY ORDER.

We trade on honor, and guarantee everything to be absolutely right, or returnable at our cost.

McKEY & CO.,
 36 Hamilton Street - - - BOSTON.
(Ask your wholesaler for "Blue Seal" Goods.)

Analeeta in Pepsin Testing.

By J. B. NAGELVOORT, Professor of Applied Pharmaceutical Chemistry in Northwestern University School of Pharmacy.

Every man has a right to be heard if he has something to say, and this is especially true if he has to defend himself.

Mr. Snow's principle laid down in the *Era*, in his recent article furnishing results of tests of the prominent pepsin of the market, is praiseworthy. All druggists ought to follow his example and examine what they dispense. It would do much good if they did.

What I want to be heard about is in regard to the expression: *Loco citada*, pepsin—Parke, Davis & Co., claimed, 1:3000; found, 1:1875.

I cannot understand how a man of the ability of Mr. Snow, a gentleman as well posted in our literature as he has frequently proved himself to be, should revive the unsavory pepsin war.

It is my duty, however, to ask permission to take up the glove thrown down by Mr. Snow, since I am personally involved in the controversy.

In the first place, from an experience as their chemical adviser, covering a good many years, and in this case covering the whole history of pepsin manufacturing on the modern basis, I know too well that no pepsin manufactured by Parke, Davis & Co., is allowed to leave the house, as the business term is, which has not been fully verified as to its strength as represented; furthermore, that if the pepsin was found to be 1:1875, the analyst in charge would reject it. Every dealer with said manufacturing concern must testify to the fact that my late employers did not hesitate to express their disapproval of, and to reject, material, supplies, etc., not, in every particular, satisfactory to their chemical adviser. And never was any distinction made between their own products and those of others; it came to the expression of an opinion.

It is irrelevant what an anonymous author states in a recent pharmaceutical journal. American druggists are not governed by directions of the B. P. It would be just as lame an excuse for failure to say that the whole matter of testing the converting power of pepsin is a delusion.

There is but one question at issue. According to the established American standard this question is, "How much coagulated egg albumen is dissolved by a certain quantity of pepsin?"

A stranger to the seller, I bought four samples of the pepsin in question in the open market in Chicago, and received the original packages labeled, in part: "Pepsin, 1:3000. Parke, Davis & Co., manufacturers." I selected twelve students of the Ph. C. class of '95 of the School of Pharmacy of Northwestern University, assigned to two of them one of the four original packages, directed and superintended their work, and had them assay the pepsin according to the directions of the U. S. P.; instructed them to report to me in writing, and to enter their reports in a

journal kept in the school for such purpose. One day one of them made the pepsin solution and prepared the diluted hydrochloric acid, while the other boiled the eggs, divided the coagulated albumen, and attended to further details. The required labor of shaking the coagulated albumen with the acid and the pepsin was divided between the two. The second day the labor was reversed, the gentleman who attended to the eggs the previous day making the pepsin solutions, and vice versa. I managed it that all the four samples were treated in like manner.

Their reports are on record in my school and read: "Claimed, 1:3000; found, 1:3500, between four and five hours."

Having thus secured as impartial a trial as I could possibly give to the case, I did the testing myself, and found that the four samples referred to possessed a dissolving power for coagulated egg albumen, assayed according to the U. S. P., of 1:3500.

Now, I proceeded differently. I took four quantities of 10 grams each of coagulated egg albumen obtained as before; transferred to proper test tubes; divided each equally with 90 cc. of water; added 5 cc. of 2-per-cent. hydrochloric acid to the mixtures; introduced into the acid fluids respectively 2.8 cc. and 3 cc. of a solution of 0.100 gm. of pepsin No. 1, 2, 3, and four in 100 cc. of water, and agitated the test automatically and evenly, during four to five hours, at a temperature constantly kept at 40° C. By this *modus operandi*, I found that the four samples of pepsin above referred to had a dissolving power of 1:3500; claimed, 1:3000.—*The Western Druggist*.

Practical Uses of Liquid Oxygen.

G. Buchner ("Pharm. Centralh.") states that liquefied oxygen is now employed for various purposes, and points to the possible uses to which it may further be put with increased facilities for its production. By introducing pure oxygen into the flames produced by hydrogen, illuminating gas, carbon monoxide, acetylene, etc., a degree of heat is attained which cannot be reached in any other way. We might, thus, employ pure oxygen instead of air in the various processes in which heat is necessary. Above all, however, the chemical industry, metallurgy, and metal technics will reap the greatest benefit from the use of liquid oxygen. Steel, forged iron, gold, platinum, and other difficultly fusible metals can, in a few minutes, be melted in a current of oxygen. This will be of particular value to the iron industry, where oxygen bellows, instead of air bellows, as at present, might be used in the production of the heat necessary to melt this metal. In the cast steel industry it could also be employed to advantage. For the purpose of lighting ships, lighthouses, etc., it may be used in the production of Drummond's calcium light and of the zirconium light. In the glass industry, oxygen is now used

to advantage to melt and clear the glass flux; by means of the oxy hydrogen blow pipe it is used to solder lead and glass plates in making large glass reservoirs for accumulators. Oxygen is used in large quantities in the manufacture of anhydrous sulphuric acid. For this purpose a mixture of sulphur dioxide and oxygen is lead over red hot platinum asbestos. In the chemical laboratory oxygen has also long been used to facilitate combustion in various processes. Oxygen will probably some day be employed in oxidizing drying oils in the paint industry, for inhalations, and in the production of ozonized oxygen, which latter might some day play an important part in the bleaching industry. This gas, the author states, might, in the future, be conducted into our houses for the purpose of enriching our rooms with oxygen.—*Merck's Report*.

Simple Method of Preparing Hydrogen Phosphide.

As Fourcroy and Vauquelin have shown (says *Naturwissenschaftliche Rundschau*), phosphorous and free (molecular) hydrogen cannot be combined. Retgers, proceeding under the idea that the melting point of yellow phosphorus (44° C.) is too low for such a reaction to occur, repeated the experiments of the French chemists, using red phosphorus, whose melting point is considerably above that of the yellow, and obtained, on heating a glass tube to the former in a stream of hydrogen, a great quantity of hydrogen phosphide (phosphorous trihydride, P_3H_3). The gaseous result gave out the characteristic odor, and when mingled with phosphorous hydride, P_4H_2 gave the conclusive reaction of spontaneous ignition. With both reactions a by-product of solid phosphorous hydride P_4H_2 was formed, in the shape of a yellow efflorescence in the tube. Outside of any chemical or economic uses that this action has, it will furnish a most valuable lecture demonstration of a simple method of showing at once the formation of the three hydrides, as well as an example of the direct union of two elementary substances.—*National Druggist*.

Cuminin.

This excellent body, of which the usefulness as a perfume-material is as yet insufficiently appreciated, is now supplied at a somewhat reduced rate, owing to an improvement in the mode of manufacture. The use of cuminin in the manufacture of toilet soaps is said to be steadily growing. There is, in fact, no better preparation for softening down different odors and blending them into a harmonious whole.

CITRAL IMPROVED BY CITRONELLON.—Experiments have shown (*Schimmel's Report*) that 1 part of citronellon (a natural constituent of lemon oil) added to four parts of citral greatly enhances the lemon flavor of the latter.

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

JANUARY 15TH, 1896.

Ontario College of Pharmacy.

One hundred and nineteen students have registered at the O.C.P. for attendance at the senior course, which commenced on the 7th inst.

As the college is equipped and fitted for the accommodation of 120 students, there is scarcely room for any more. In fact, it has already outgrown its present accommodations, indicating that the increase in size of building made a few years ago is hardly adequate to the present needs of the institution.

American Pharmaceutical Association.

We ask our readers to bear in mind that the annual meeting of the American Pharmaceutical Association will be held this year in Montreal, commencing August 12th. The attendance at the meeting held in Denver in 1895 exceeded five hundred, and we have every reason to believe that an equally large number of members and their ladies will be in Montreal. We hope to see Canadian pharmacists well represented there, and all who possibly can should endeavor to make their arrangements so that they may be enabled to be present at this meeting.

You do not lose anything, but, on the contrary, gain a great deal by mingling with brother pharmacists, learning their methods of business, cultivating friendships amongst the craft, and getting your eyes opened to what is transpiring around you; and to attend a representative meeting of this kind, where subjects in which you are particularly interested are discussed, will be a lasting benefit. Date, Aug. 12th; place of meeting, Montreal; to be present, all pharmacists.

A Valuable Article.

With this number we commence a series of articles by Mr. Lionel Laurance, of the Optical Institute of Canada, on the "Science of Optics." These will be found especially interesting and profitable reading, particularly for those who are making a study of optics and the proper fitting of glasses.

The articles will be liberally illustrated, and will appear regularly each month.



Frank C. Simson.

At the annual meeting of the Maritime Commercial Travellers' Association, held recently in Halifax, N.S., Mr. F. C. Simson, of the firm of Simson, Bros., & Co., wholesale druggists of Halifax, was chosen president for the year.

Mr. Simson has been a very active member of the association, having acted as director and vice-president for several years. The above portrait is taken from one appearing in the *Halifax Herald* of Dec. 28th.

Ontario College of Pharmacy.

The following is the result of the senior examinations of the Ontario College of Pharmacy, being the fifth semi-annual examination:

College gold medal—W. H. Lee, Toronto. College silver medal—J. E. Gayfer, Ingersoll.

The following candidates have passed in all subjects: G. H. Bean, Toronto; E. W. Cameron, Brantford; T. S. Dawe, Toronto; Frank Dowling, Blessington; N. W. Emerson, Zimmerman; Wm. Evans, Elmwood; Frank Farr, Sarnia; J. E. Gayfer, Ingersoll; J. E. Gorrell, Gore Bay; W. H. Lee, Toronto; E. E. Miller, Owen Sound; G. E. Smeaton, Belleville.

Candidates who have passed now, taking part subjects on previous occasions: M. S. Ballard, Ottawa; A. W. Buschlen, Arthur; Albert Chambers, Millbrook; H. W. Chambers, Guelph; R. C. Houston, Toronto; Arthur D. Jackson, Clinton; J. C. Keogh, Guelph; W. H. Medley, Kingston; F. W. C. Ross, Toronto; G. A. Rowe, St. Catharines; C. E. Swaisland, London.

Passed in part subjects, viz.: Dispensing—R. H. McNally, Chesley; D. W. Sutherland, Guelph. Prescriptions—R. H. McNally, Chesley; D. W. Sutherland, Guelph. Chemistry—R. H. McNally, Chesley. Pharmacy, D. W. Sutherland, Guelph. Materia Medica—D. W. Sutherland, Guelph. Botany—H. R. Carter, Picton; E. M. Laird, Sarnia;

R. H. McNally, Chesley; H. G. Robertson, Hamilton.

Following are the results of the annual junior examinations in connection with the Ontario College of Pharmacy:

First-class honors in order of merit: John T. Mitchell, R. Arthur Gausby, Wm. Renwick, John McDougall, Fred P. Coates, Hugh A. Gourlay, W. J. Lalonde, J. G. Anderson, S. T. Hopper, B. F. Darby, James H. Bennett, Albert P. McKenzie, W. H. Robson, W. H. Parish, Robert A. Land, A. Bedford, A. H. Fowlie, M. H. Allen, W. H. Crossland, F. A. Jacobs, R. A. Westbrook, A. R. Anderson, T. H. Atkinson, Frank T. Carey, H. R. Hurlburt, Wm. Cochrane, E. F. McKechnie, R. McKay.

Second-class honors in order of merit: Otto G. Palm, E. L. Colling, Wm. C. Burns, Edward J. Mitchell, A. C. Denike; A. J. Johnson and Charles N. Hoy, equal; J. P. Wilson, Colin C. Laing, F. W. McClung, John R. Byers, A. C. Thorburn; L. J. Harvey and H. S. Pannell, equal; D. E. Munro, Geo. T. Stenson, Alex. C. Lochead, F. Dunham, W. J. Greenshields, E. A. Caughell, R. J. Patton, W. J. Quinsey, H. J. Barber, W. G. Lauchland, Robert M. Glen, E. F. Crosher, J. E. Elliott, Herb. F. Spencer, R. P. Weeks, Bruce Greer, J. A. Mathieson, Alf. W. Cowan, T. E. Schaaf, T. Ernest Reid, Gilbert McCorvie, Sinclair Smith, R. U. Belanger, Albert T. S. Reid, G. H. Edmison.

Pass list—Edward Allan, G. A. Begg, K. B. Cameron, Harold Carnahan, Clayton Copeland, J. W. Dougherty, A. S. Greenwood, Hugh S. Hopkin, George Horton, A. C. Hutton, Hattie A. Johnson, W. J. McCutcheon, J. A. McLachlin, Robert McLeod, A. F. McLachlin, A. D. Maclellan, J. A. Mitchell, T. E. Mullett, Daniel Nairn, J. Nicoll, H. E. Pass, J. M. Plaunt, J. S. Reid, John F. Ross, Robert Rawley, James Walker, G. E. Watson, E. C. Wilson, Herbert N. Winter.

Starred in part subjects only—Chemistry—Thomas O'Reilly, R. Scott Dickson, J. W. Lawrence. Pharmacy—J. M. Sissons, E. H. Allan, D. H. Jessop, W. Gibson. Pharmacy, materia medica, and chemistry—James B. Gordon. Pharmacy, chemistry, botany—M. Buckle.

Highest in subjects—Pharmacy (including practical)—R. Arthur Gansby, F. A. Jacobs, F. P. Coates. Latin, posology, etc.—W. J. Lalonde, J. T. Mitchell, H. S. Pannell. Botany—J. T. Mitchell, R. A. Land; John McDougall and Albert P. McKenzie (equal). Chemistry—John McDougall, Wm. Renwick, R. A. Westbrook. Practical chemistry (all equal)—Fred P. Coates, E. F. Darby, Bruce Greer, D. E. Munro, John T. Mitchell, George T. Stenson, R. A. Westbrook, J. G. Anderson, W. J. Lalonde, R. Arthur Gansby, Wm. Renwick, Hugh A. Gourlay, H. E. Hurlburt.

The semi-annual meeting of the council for granting certificates of competency, and for general business, will be held in the city of Toronto on Tuesday, Feb. 4th, 1896.

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Is the watchword of the time, and we have no objection to taking it up as we swing into our forty-first year in the business world—in fact, it always has been the motto of the house of Frederick Stearns & Company ever since its small beginning in 1855 up to the present time. In the era of forty-one years, through which our house has grown up to its present extensive proportions, wonderful progress has been made in all lines, but in none more than in pharmacy, and in none have more false ideas, erroneous theories, and crude methods been rung out, and new thought and improvement rung in.

We rang in the Non-Secret Idea several years ago, which proved to be such a good and original one (supplying the druggists with prescriptions of known composition and proven value) that our competitors have been trying to get a pull at the ropes ever since.

We have seen the idea die out that all medicine must necessarily be disagreeable and nauseous, principally through our successful efforts to place in the hands of the professions palatable and concentrated preparations of bitter drugs, prominent in materia medica and extensively used.

Old, crude, and imperfect methods of manufacturing have been rung out, and new devices, apparatus, and machinery, the result of the latest modern thought and study, have been ushered in. In many instances we have been the first to adopt these, and in some instances we have been the originators.

We have rung in and out for forty-one years, and wish to assure our friends that we intend to keep right on doing so, and are ready at all times to give them all the information they may want regarding the old and the new. And although we expect some of the benefit accruing from the energetic and scientific manner in which we ring the bells, we believe we always have been, and will continue to be, liberal, considerate, and just in our treatment of our friends, the druggists, whose patronage we respectfully solicit.

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UNITED STATES HEALTH REPORTS (Official Endorsement, June 19, 1895, page 10.)

"In the interest of the masses for whom these Reports are compiled, the United States Health Reports have examined and investigated many preparations having for their object the cure of the tobacco habit, but among them all we have no hesitancy in giving the editorial and official endorsement of these Reports to the remedy known as **Uncle Sam's Tobacco Cure**, manufactured by the Keystone Remedy Co., at 217 LaSalle Street, Chicago. We have demonstrated by personal tests that this antidote positively destroys the taste and desire for tobacco in ten days, leaving the system in a perfectly healthy condition, and the person using the same forever free from the habit.

"In the light of our examinations and tests of **Uncle Sam's Tobacco Cure**, we are but performing a duty we owe the public when we endorse the same, and stamp it as the crowning achievement of the nineteenth century in the way of destroying a habit as disgusting as it is common (**for only \$1.00**), hence we earnestly advise you to write them for particulars."

For Sale by all Wholesale Druggists

Ontario College of Pharmacy.

JUNIOR EXAMINATIONS, DECEMBER, 1895.

PRACTICAL CHEMISTRY.

Examiner—GRAHAM CHAMBERS, B.A., M.B.

1. Detect the acid in the substance marked "A."
2. Detect the acid in the substance marked "B."
3. Detect the acid in the substance marked "C."
4. Detect the metal in the substance marked "D."
5. Bend the necessary glass tubing, and set up Marsh's apparatus for testing for the presence of arsenic.
6. How would you distinguish :
 - (a) Calcium oxide from phosphorous pentoxide.
 - (b) Nitrous oxide from oxygen.
 - (c) Carbon monoxide from hydrogen.
 - (d) A nitrite from a nitrate.
7. Write equations representing the action of :
 - (a) Water on nitrogen pentoxide.
 - (b) Hot concentrated sulphuric acid on hydriodic acid.
 - (c) Dilute sulphuric acid on ferrous sulphide.
 - (d) Chlorine on hot solution of caustic potash.
8. What products are formed by the action of heat upon the following (give equations):
 - (a) Ammonium nitrate.
 - (b) Hydrogen peroxide.
 - (c) Orthophosphoric acid.
 - (d) Strong sulphuric acid with oxalic acid.

CHEMISTRY AND PHYSICS.

Examiner—A. Y. SCOTT, B.A., M.D., C.M.

Time allowed : 2 hours.

1. State the law of multiple proportion, and illustrate by means of the oxides of nitrogen.
2. Give the history, occurrence, preparation, properties of, and tests for chlorine.
3. What volume of chlorine can be obtained from 1,000 grammes of sodium chloride (a) at normal temperature, and pressure (b) at 20°C., and 785 m.m. pressure?
4. What impurities may be looked for in well water, and how would they be detected?
5. Give preparation, properties, and uses of hydrogen nitrate. What are the usual impurities? How would they be detected?
6. How are yellow and amorphous phosphorus prepared? How do they differ from each other? How many atoms in a molecule of phosphorus, and why?
7. How much sulphur would it require to use up by burning the oxygen in a vessel of air 1 metre in diameter and 2 metres high?

8. What is the action of chlorine on :
 - (a) A cold solution of potassium hydrate ;
 - (b) A warm solution of potassium hydrate?
9. Explain the principles involved in a Sprengel air pump.

LATIN, PHOSLOGY, ETC.

Examiner—J. T. FOTHERINGHAM, B.A., M.B., M.D., C.M.

Time allowed : 2 hours.

1. Decline the following : *Pilula, in fustum, haustus, hydras.*
2. Rewrite this prescription (meant for an adult), reducing the quantities to suit a child of twelve years. Give the rule by which you work.
R. Tinct. Digitalis.
Tinct. Strophanthi aa ʒii.
Tinct. Chloroformi . . . ʒiii.
Syr. Zingiberis ʒiii.
Aq. ad ʒiv. M.
Sig. ʒii. ex. aq. 4 tā. q. h.
3. Write out in full Latin the directions in the above prescription and translate them.
4. Divide the above prescription into its main portions and subdivisions, according to the plan of a classical prescription, naming each part.
5. Describe the essential structures of a villus of the small intestine, and say what part each plays in absorption.
6. Give maximum dose of each of the following : *Vin. ferri, tr. cinch. co., tr. cannab. ind., tr. jaborandi, tr. gelsemii, syr. chloral, pulv. jalapæ co., pulv. cretæ aromat. c. opio, pil. ferri iodidi, pil. colocynth co., inf. digitalis, extr. nuc. vom., extr. taraxaci, extr. opii, extr. filicis liq., extr. bellad. alcoholicum, acet. scillæ, aq. camphoræ, sp. chlorof. et. morph., sp. æth. sulph. co.*
7. Write short notes on ferments, idiosyncrasy, anesthetics, hæmatinics, soporifics.
8. Classify foods, giving the main use of each class in the animal economy.

BOTANY.

Examiner—A. Y. SCOTT, B.A., M.D., C.M.

Time allowed : 2 hours.

1. Distinguish between epiphytes, parasites and saprophytes.
2. What are the functions of a leaf? Describe fully, giving a drawing of the transverse section of a leaf. What is the distinction between foliage and floral leaves?
3. Describe fully the ovule of a plant.
4. What is meant by fertilization and pollination? How is self-fertilization prevented in many plants?
5. Describe four forms of indefinite inflorescence, giving a drawing in each case.
6. Name the various parts of a vegetable cell. How are new cells formed?
7. Name the parts of a flower and give

their functions. Which would you term essential? Describe a perfect, a complete, and a regular flower. What is a phanerogam?

8. Explain the following: Leaf cycle, bark, prunordial, utricle, stipule, raphides.
9. Practical.

PHARMACY.

Examiner—CHAS. F. HERBER, Ph.D., Pharm.B.

Time allowed : 2½ hours.

1. METRIC SYSTEM.—Explain fully the relation existing between (a) the gram and meter; (b) the meter and the litre. What are the metric equivalents for (c) one inch; (d) one gram; (e) one fluid ounce.
2. Add together 2½ kilos, 345 milligrams, 24 dekagrams, 12 decigrams, 3 myriagrams, 4½ centigrams, 8 hectograms, and convert the result into avoirdupois weight.
3. AMMONIUM CHLORIDUM.—(a) Source; (b) how prepared; (c) usual impurities of the commercial salt; (d) describe method of purification, explaining how each impurity is removed.
4. SPECIFIC GRAVITY.—What will be the weight of 500 c.c. of (a) *Chloroformum P.B.*; (b) *Spiritus Tenuior P.B.* (c) Given a verified pycnometer, capacity to mark on its neck 50 grams distilled water at 15°C.; a powder weighing 7.5 grams placed in it, and then distilled water (15°C.) added to fill up to established mark; powder and water together weigh 55 grams; what is the specific gravity of the powder?
5. State the meaning of the following terms, as applied to pharmaceutical preparations: (a) galenical; (b) official; (c) officinal; (d) magistral.
6. (a) Define comminution. (b) How are dusted powders made? (c) Mention and explain the processes resorted to in the preparation of creta preparata.
7. Required 185 grams of scammony containing 78 per cent. of resin to be made up from portions containing 90 per cent., 75 per cent., and 68 per cent. of resin; how much of each portion may be used?
8. (a) How would you verify a drachm graduate as to its marks for 30 minims and 60 minims? How test a single beam equal arm balance, (b) for parallelism of knife edges, (c) for equality of length of arms?
9. DIALYSIS.—(a) Define, (b) describe the apparatus used; (c) what forces are exhibited during the operation, and (d) what are the respective directions of their action? (e) During the preparation of *Liquor Ferri Dialysatus*, in what part of the apparatus will the finished product be found?

10. Mention the conditions required for the formation of large and perfect crystals from solution.

PHARMACAL LABORATORY.

Examiner: CHAS. F. HERBNER, PH.G., PHM.B.

Time allowed: 2½ hours.

1. Prepare 90 grams of solution of subacetate of lead by the following formula, submitting a report in accordance with the subjoined synopsis, and illustrating the chemical changes by an equation:

LIQUOR PLUMBI SUBACETATIS.

Lead acetate.... 88.3
Lead oxide, in
powder..... 62.5
Distilled water... 425.0 or q.s.

Make finished product..... 450.0 grams

Heat the distilled water to boiling, and dissolve in it the lead acetate. Add the lead oxide gradually and boil gently for half an hour, agitating well, and keeping up the original volume of the liquid. Filter, and make up to proper weight.

REPORT 1.

(Exhibit all figures used in calculations required.)

Amount of each ingredient used:

Lead acetate.... grams.
Equivalent in grains....
Lead oxide..... grams.
Equivalent in grains....
Distilled water.... c.m.
Equivalent in fl. ozs....
Equation.....

2. Determine the specific gravity of the solution of subacetate of lead. (Bottle and label properly, and submit solution to the examiner.)

REPORT 2, SPECIFIC GRAVITY.

Weight of solution used.....
Weight of equal volume of water...
Specific gravity.....

(Exhibit figures.)

N.B.—Neatness of work, order in arrangement, and cleanliness of working desk and outfit, will enter as important factors in your ratings.

SENIOR EXAMINATIONS, DECEMBER, 1895.

MATERIA MEDICA.

Examiner: J. TOLBERT PEPPER.

Time allowed: 2 hours.

1. Name ten drugs of the natural order leguminosæ, official in the British Pharmacopœia.
2. Oleum Morrhuæ—Give origin, class, order, family, habitat, a description of the method of production, and of the oil as you have seen it in drug stores. Give good reasons

why some samples of oleum morrhue are so much better than others. Give constituents and medicinal properties.

3. Name plants in which the following constituents are found: pil carpine, caffeine, cocaine, emetine, vanillin, inulin, jervine, atropine, amygdalin, salicine.
4. Give in one or two words the therapeutic action of each of the following drugs: ergot, cantharides, belladonna, cubeba, buchu, nux vomica, asafetida, cascara, senega, sarsaparilla.
5. Give natural order and habitat of the following: ricinus, galbanum, rheum, gelsemium, colocynthis.
6. Name part used and medicinal properties of the following: digitalis, camphora, opium, ulmus, scilla.
7. What seeds are official in the British Pharmacopœia?
8. What is benzoin? How is it procured? What varieties are found in commerce? Where is it obtained? Name its properties and uses. What acid is obtained from it? Is this acid, as usually found in drug stores, made from benzoin? If not, what is its source?
- 9 and 10. Recognition of specimens and oral examination.

Values—10, 10, 10, 10, 10, 10, 10, 10.

CHEMISTRY.

Examiner: PAUL L. SCOTT.

Time allowed: 2 hours.

1. Explain fully the application of the law of Avogadro in determining the number of atoms in a molecule of mercury.
2. The hardness of a sample of spring water is found to be due to the presence of carbonate and sulphate of calcium. State—giving equations—how the hardness of the water would be affected by
- (a) Boiling.
 - (b) The addition of lime water, not in excess.
 - (c) The addition of solution of ammonia.
 - (d) The addition of carbonate of potassium.
3. Show by means of equations the action of
- (a) Hydrochloric acid on the official calcium phosphate.
 - (b) Cream of tartar on wet oxide of antimony.
 - (c) Sodium carbonate on magnesium sulphate in solution.
 - (d) Corrosive sublimate on lime water.
 - (e) A stream of carbondioxide on ferrous sulphate in solution.
 - (f) Dilute nitric acid on iron.
4. Define compound and haloid ethers,

and give the name and formula of an official compound of each class. State what is meant by a homologous series, and give the general formulæ of the homologous series to which chloroform and ether respectively belong.

5. Give the formula, and tests for identity and purity of the official carbonate of lead, explaining, with or without equations, precisely what facts as to identity or purity are indicated by each test. Show how
- (a) Carbonate of bismuth, or
 - (b) White lead, adulterated with carbonate of barium, would fail to conform to these tests.
6. What weight of acetic ether would, upon heating, yield a quantity of vapor which, at a temperature of 182° C., and a pressure of 950 mm., would measure 10 litres? What quantity of 90% alcohol would theoretically be required to produce this quantity of acetic ether? Show work.
7. Give the sources and usual method of preparation of boracic acid and of borax. Give tests for identity and purity of boracic acid, and state what changes are effected upon it by heat.
8. Give the formulæ of iron and potassium alums, and state how much N. and how much Al. are contained in 1000 gm. of ammonium alum B.P. Show work.

Values—8, 8, 12, 10, 12, 10, 10, 10.

PHARMACY.

Examiner: F. T. HARRISON.

Time allowed: 2 hours.

1. Give in detail the B.P. process for preparing the solid extracts made from the fresh leaves and flowering tops of the plant; and state reasons for each step.
2. The following preparations, being more or less unstable, require to be tested from time to time to see if they are in proper condition for dispensing: Spirit of nitrous ether, diluted hydrocyanic acid, and sulphurous acid. State in each case how you would perform such tests.
3. Give the percentage of morphine in extract of opium, liquid extract of opium, aromatic powder of chalk and opium, and compound tincture of camphor, and the per cent. of total alkaloids in extract of nux vomica and liquid extract of cinchona.
4. State what excipients you would use in making pills of the following: Sulphate of quinine, phosphorus, nitrate of silver, permanganate of potash, and sulphate of iron. Give reasons for your choice in each instance.
5. From what materials are prepared: Simple ointment, Donovan's solution, Hoffman's anodyne, compound pill of soap, and Griffith's mixture.

6. Describe fully, giving reasons for various steps, the preparation of two of the following: Strong solution of perchloride of iron, spirit of nitrous ether, ointment of nitrate of mercury.
 7. Give strength, menstruum, and method of exhaustion employed for the following preparation: Liniment of aconite wine of ipecacuanha, tincture of tolu, ammoniated tincture of valerian, and vinegar of squills.
 8. Express: 10° C., 40° C., and 45° C., in F. degrees; and 90° F., 18° F., and 6° F., in C. degrees.
 - 9 and 10. Oral and recognition of specimens.
- Value—8, 12, 12, 10, 10, 10, 8.

PRESCRIPTIONS.

Examiner: W. MURCHISON.

Time allowed: 3 hours.

MR. TENNANT.

- R
P. camphoræ, granum.
P. ammon. carb. grani semissem.
P. opii, grani tres quartas partes.
Misce. fac pilulas tales duodecim.
Sig. cap. unam pro dosi ut necesse sit.

MRS. LANG.

- R
Magnes. sulph. grana decem.
P. carbo. ligni, granum.
Misce. fiat charta, mitte tales septem.
Sig. cap. unam statim ante jentaculum per septem dies.

MR. DONAGH.

- R
Emp. lyttæ (round 2 inches diam.)
Super emp. adhesiv. extend.
Sig. lateri dolenti applic. usque ad vesicationem.

MISS FERRIS.

- R
Capsulæ terebinth. minima septem, mitte quinque.
Sig. unam hora somni per hebdom. sum.

JAMES ELDER.

- R
Sp. terebinth, drachmas quatuor.
P. tragacanth, quantum sufficiat.
Magnes carbonat, drachman.
Aque ad uncias quatuor.
Misce bene ut fiat emulsio, cujus cap. æger cochl. min. bis terve in hora si necesse sit.
Value—18, 12, 12, 12, 16.

BOTANY.

Examiner: D. A. WHITE.

Time allowed: 2 hours.

1. Explain fully what plants were made for.
2. What term is used to describe the arrangement of flowers on the stem? Name ten different varieties, and state whether determinate or indeterminate.

3. Name the parts of a leaf, and give the names of some of the special forms of leaves.
4. Define the terms phyllotaxy, monogynous, caulescent, scape, perianth, connate, tomentose, stigma, embryo, sessile.
5. What are the essential parts of a flower, and what the non essential?
6. Explain the difference between a root and a stem. Distinguish between herbaceous and suffrutescent stems. Define rhizome, corm, and tuber.
7. Describe the process of fertilization.
- 8, 9, 10. Oral.

PRESCRIPTIONS.

Examiner: A. R. FRASER.

Time allowed: 2 hours.

1. Translate—describe fully the manner of dispensing the following, pointing out any errors which may occur.

R Phosphorus granum unam zinci valerianiana duas extracti aloes granum unam cum semisse.
Extracti nucis vomicae grana tres.
Misce fiat pilulæ unam, mitte tales triginti, capiat unam tertia quarta quaque horæ et hora decubitus.
p.r.n.

2. Translate and give manner of mixing the following:

R Codeine	gr. viii.
Ol. jecoris asselli	ʒii.
Ol. gaultheri	q.s.
Pu. tragac	q.s.
Pu. sacch. alb.	ʒii.
Syr. prun. virg	ʒii.
Aq. calcis ad.	ʒvi.

M
Coch. med. t.d.s. ex.: Aq. ʒii. p.c.
pro tussi urgenti.

N.B.—State quantity of pule-tragac used.

N.B.—State quantity of ol. gaultheria used.

3. What is the dose given of hydrarg. perchlor. in the following mixture:

R Liq. hydr. perchlor. ʒii.
Glycerin ʒss.
Aq. dist. ad. ʒii.

coch min ter die ex aq.

N.B.—Show work.

4. Give adult dose of Donovan's solution; nitrite of amyl.; decoct aloes co.; creasote, white precipitate; arsenious acid; acetum cantharides; ether. liq.; strychnine; croton oil; iodoform.

5. Give full Latin and English for following abbreviations: C. M. S.; si febris adest; cochleat; sum tal; F.H.; sesunc; post jentaculum; ss; pocil; si n. val.

6. Give full Latin name for following: Parrish's syrup; Glauber salts; salts of sorrel; hieira picra; monrels solution; Iceland moss; red lavender; Scotch paregoric; basilicon ointment; citrate of magnesia.

7 to 10. Oral examination.

10, 10, 10, 10, 10, 10, 40.

Phosphergot, a Tonic.

Phosphergot is the generic name given by Eaton to a mixture of sodium phosphate and ergot, recommended in general debility. It appears in the following three modifications: The variety intended to be taken as a mixture (in sweetened water) contains 15 gm. (23 grn.) of sodium phosphate and 1 gm. (15 grn.) of powdered ergot; this quantity constituting a daily dose. In the case of phosphergot powder each dose represents 0.25 gm. (3 1/4 grn.) each of dried sodium phosphate and powdered ergot, and this dose is intended to be taken in the morning, on an empty stomach. For pills, the following proportions are used: Dried sodium phosphate and extract of ergot, of each 2 gm. (31 grn.); made into 20 pills; 2 to 4 pills to be taken daily. *Pharm. Ztg.*

Glycerine.

Perhaps no other subject connected with the trades represented by this journal is more interesting than that of glycerine. The great rise in price and the increased demand, together with the fact that there is every indication that the price will go still higher, make the subject one which practical men may with advantage turn their attention to at this time. The increase in price may, doubtless, be attributed very largely to the Japanese war against the Chinese. Up to that time smokeless powder, cordite, etc., seemed to possess great advantages; but it was only in actual warfare that the value of them could be demonstrated beyond doubt. All doubt on the question having finally been set at rest, the demand for glycerine, which is an important constituent of smokeless powder as well as dynamite and nitro-glycerine, increased, with a corresponding advance in price.

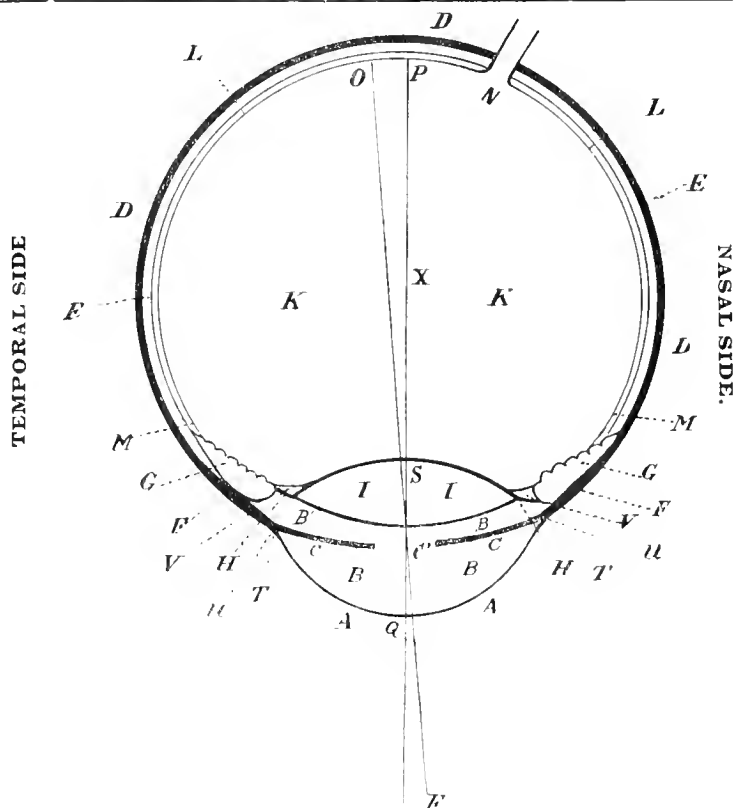
We learn on an authority that cannot be questioned that one of the leading glycerine manufacturers has recently refused quotations because the demand exceeded the supply, which in the case of this manufacturer is very large. We also learn that a number of the smaller soap manufacturers—not, of course, the smallest—are putting in glycerine plant, so that there is every indication that the market in this material will bring about some interesting developments in the not distant future.

Comparatively small soap manufacturers, who have for years been pouring their spent lye down the drains, will, by the enhanced price of glycerine, now find it profitable to put in plant of their own for the recovery of it.—*Oils, Colors, and Dryalities.*

Salithymol, or salicylic thymol ester, is an antiseptic, and is a white crystalline powder of faintly sweet taste, slightly soluble in water, but readily so in alcohol and ether.

The Science of Optics.

BY LIONEL LAURANCE,
Principal of the Optical Institute of Canada.



Horizontal Section of the Eye.

AA—Cornea. BB—Anterior chamber of the aqueous humor. CC—Iris. C—Pupil. DDD—Sclerotic. EE—Choroid. FF—Ciliary muscle and ligament. GG—Ciliary process. HH—Suspensory ligament of the lens. II—Crystalline lens. KK—Vitreous humor. LL—Retina. MM—Ora serrata, where the retina terminates. N—Blind spot, entrance of the optic nerve into the globe. O—Yellow spot—Macula lutea. P—The posterior pole. Q—The anterior pole. PQ—Imaginary line from back of eye through the centre of the cornea, called the optic axis. OR—Imaginary line from the macula lutea to the object looked at, called the visual axis. S—Nodal point, near the back of the crystalline lens, where the visual and optic axes cross each other. TT—The sclero-corneal margin. UU—The canal of Schlemm. VV—The canal of Petit. X—The centre of rotation.

Elementary Anatomy of the Eye.

The eyeball is almost a perfect sphere, with a segment of a smaller sphere projecting from it in front. The length, when normal, is nearly one inch. It is located in an orbit which is almost square, and about $1\frac{3}{8}$ inches deep. The orbit is thickly coated with a fatty tissue, which forms a cushion, against which the globe lies. The globe weighs about $\frac{1}{2}$ of an ounce.

COATS OF THE EYE.

DDD The sclerotic or white coat is a very tough membrane, which covers $\frac{2}{3}$ of the globe. It is perfectly opaque, and serves to keep the interior portions of the eye in place, and maintain the shape of the globe. The blood vessels of this coat are very small and scattered. The continuation of the sclerotic in front is

AA The cornea, which is round, perfectly transparent, covers the remaining $\frac{1}{3}$ of the globe, and is united with the sclerotic just as a watch-glass is let into the bezel of a watch, at the sclero-corneal margin TT. It consists of five layers—

the conjunctival epithelium, the anterior elastic, the true corneal, the posterior elastic, and the internal lining. The true cornea is itself formed of several laminae. The elastic layers seem to serve the purpose of preserving the proper curvature of the cornea. There are no blood vessels in this coat. The sclerotic is the wall, and the cornea is the window of the eye, and they constitute together the first tunic.

EE The choroid lines the inside of the sclerotic. It is a pigmentous, extremely dark brown or black coat, and is thickly overlaid with blood vessels. It absorbs superfluous rays of light, and serves as a bed, on which lies the retina. It consists of three layers—the external or venous, the middle or arterial, and the internal or pigmentous. In front the choroid branches into two, the continuation of the external layer being the ciliary muscle and iris, while the middle and internal layers become the ciliary processes.

FF The ciliary muscle forms a circular yellowish white fibrous band continuous with the choroid, and joining that coat to the iris at the sclero-

corneal margin. It lies over the processes, and consists of two sets of muscles,—anteriorly, the radiator or straight, and, posteriorly, the sphincter or circular. At the junction of the iris and ciliary, cornea and sclerotic is the canal of Schlemm.

GG The ciliary processes, 70 or 80 in number, lie behind the ciliary muscle, and consist of the fluting of the internal and middle layers of the choroid. They surround the crystalline lens, but are not attached to it. Within their folds and corresponding to them is the ciliary zone, or suspensory ligament of the lens.

CC The iris has two muscular layers—the dilator, which consists of radiating or straight fibres in front, and the sphincter, which consists of circular fibres behind. In the centre is a round opening called the pupil, C. The posterior layer is dark purple, and the anterior is of almost any color, from intensely dark brown to very light gray, and from this the name, which, means a rainbow, is derived. The iris is the curtain of the eye. The choroid, ciliary body, and iris, sometimes called the uveal track, constitute the second tunic.

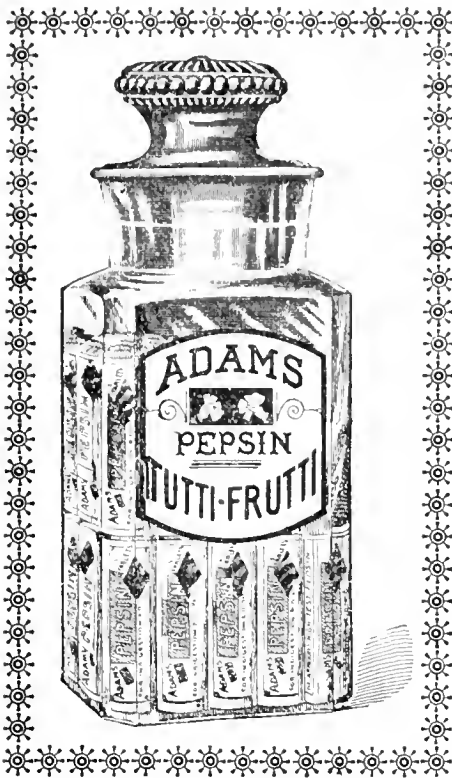
LL The retina is a fine gray-colored tunic, which, although only $\frac{1}{25}$ th in. at its thickest, and $\frac{1}{200}$ th in. thick at its thinnest part, consists of seven layers. One of these layers is a direct continuation of the optic nerve, which enters the eye at N. Another, called Jacob's membrane, is arranged in rods and cones; this is the true perceptive part of the retina. The cones are thickest at O, the macula lutea, which is the most sensitive point of vision, and then gradually thin down until where the retina terminates at MM, the ora serrata, they are extremely scanty. The point N, where the optic nerve enters the eye, is devoid of rods and cones, and is insensitive to light, and so is called the blind spot. The retina is the third tunic of the eye.

HUMORS OF THE EYE.

BB B¹B¹ The aqueous humor divided by the iris into the anterior and posterior chambers. This humor is so called because it is watery in its consistency, and freely gives to the iris, which expands and contracts within it, also to the encroachment of the crystalline lens when accommodating.

K The vitreous humor occupies the greater part (four-fifths) of the eyeball, and derives its name from glass. It is a comparatively hard and jelly-like substance, which does not alter its shape, and it keeps the eye in its spherical form. It is enclosed in a capsule called the hyaloid membrane, which gives off as a branch the suspensory ligament of the lens.

I The crystalline lens is situated behind the iris and between the aqueous and vitreous humors. It is very transparent, and is formed in concentric layers, somewhat like an onion; these are at the centre considerably harder than on the outside. The lens has a spring-like tendency enabling it to alter its form, which



You Pay Nothing

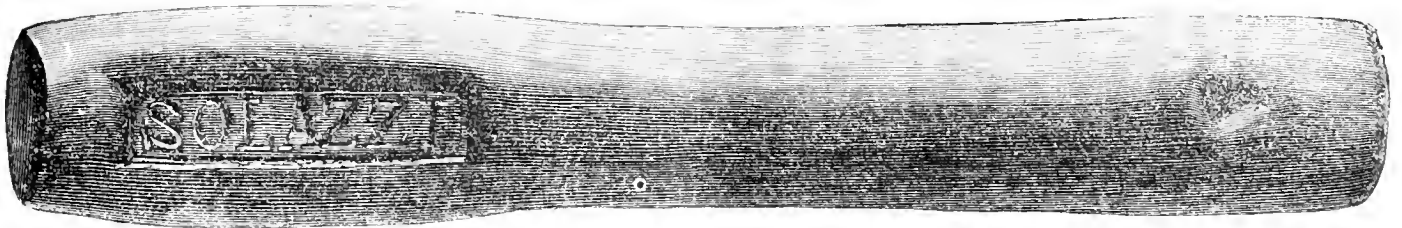
extra for this Glass Jar. It contains the equivalent of five boxes of Pepsin Tutti Frutti, and you pay the same as you do when you buy five of the boxes. That's all. There is nothing taken off your usual profit on the gum to help to pay for the jar. You get it free.

Send postal for price-list and new advertising matter for your window. Adams & Sons Co., 11 and 13 Jarvis Street, Toronto, Ont.

“Solazzi”

THE CHEMISTS' BRAND

Liquorice Juice



The Testimony of “The Lancet”

The following is from “The Lancet” of March 30th, 1895 :

“The above brand has long been known to be of standard purity. We found the specimen to be completely soluble in water, and entirely free from impurities of any kind. It is, therefore, well adapted for the pharmaceutical purpose for which it is so useful, while as a popular demulcent it is both safe and reliable.”

Recommended also by “The British Medical Journal,” “Health,” “The Chemist and Druggist,” “Food and Sanitation.”

ASK FOR SHOWCARDS AND HANDBILLS.

WHOLESALE TRADE

Please take notice that you can buy

Plug Tobaccos

DUTY PAID

Sweet Navy Chewing, all sizes, 25 to 35 cents per pound.

Bright Honey Chewing, all sizes, 33 to 43 cents per pound.

All kinds of Cut Tobaccos, 20 to 55 cents per pound. Put up in any kind of package or style required.

Cigarettes

All kinds of Cigarettes, from \$2.50 to \$10.00 per thousand.

Cigars

All kinds of Cigars, from \$13.50 to \$100 per thousand.

WRITE FOR SAMPLES AND PRICES.

CORRESPONDENCE SOLICITED.

J. M. FORTIER,

MANUFACTURER,

141 to 151 St. Maurice Street, - Montreal.

RADLAUER'S ANTISEPTIC PERLES

Of Pleasant Taste and Fragrance.

Non-Poisonous and strongly Antiseptic.

These Perles closely resemble the sublimates and carbolic acid in their antiseptic action. A preventive of diphtheric infection.

For the rational cleansing and disinfection of the mouth, teeth, pharynx, and especially of the tonsils, and for immediately removing disagreeable odors emanating from the mouth and nose.

A perfect substitute for mouth and teeth washes and gargles. Radlauer's Antiseptic Perles take special effect where swallowing is difficult in inflammation of the throat and tonsils, catarrh of the gums, periostitis dentalis, stomatitis mercurialis, salivation, angina, and thrush.

A few of the "Perles" placed in the mouth dissolve into a strongly antiseptic fluid of agreeable taste, cleanse the mouth and mucous membrane of the pharynx, and immediately remove the fungi, germs, and putrid substance accumulating about the tonsils, thereby preventing any further injury to the teeth.

METHOD OF APPLICATION:

Take 2-4 Perles, let them dissolve slowly in the mouth, and then swallow. Being packed in small and handy tins, Radlauer's Antiseptic Perles can always be carried in the pocket.

MANUFACTURED BY

S. RADLAUER - Pharmaceutical Chemist

BERLIN W., GERMANY

W. J. DYAS, Toronto, Ont., Wholesale Agent for Canada.

OZONE

Ozone Specific is a valuable non-toxic, non-irritating antiseptic for either internal or external use. Our **Ozone**, concentrated form, is the most powerful blood purifier and germicide ever produced, and will be found a specific in all forms of Asthma, Bronchitis, Whooping Cough, Croup, Measles, or Diphtheria. For Catarrhal Troubles it will prove invaluable as a tonic and constitutional remedy, and is especially efficient in preventing or combating fermentation of food in the stomach, breaking up the worst forms of Dyspepsia and Sour Stomach.

For dressing Ulcerations of all kinds, preventing suppuration, and assisting towards rapid granulation and healing, **Ozone** has no equal.

Ozone is also used as a gargle for all manner of Throat Diseases; destroying all fermentation of the tissues brought forth by impregnation of disease germs. No germ life can exist where it is used.

All Druggists should keep this remedy, as it will prove a genuine friend to their customers.

Physicians owe it to themselves to try it.

OZONE SPECIFIC CO.

TORONTO, ONT.

I Want You

... IF ...

You Want Money

Made in an honest way while doing a public good, and building for yourself a larger business.

I want one druggist in every county in the United States and Canada to act as my General Agent and keep supplied every other dealer in that county with my goods.

I am no quack doctor with a dope, no Gee-Hee Pagan-Chinese Joe-He Indian long-haired poke-root decoctor, or returned missionary from India, but a plain every-day honest American Geologist, with a discovery made in the mines—a nature-made article, nothing added or extracted. Nothing ever made by man sells like it sells and holds its friends, and I am able, ready, and prepared to prove it at my own expense to any honest druggist in every county as above. It has never before been offered to the trade, and will not be sold to the wholesale dealers for its weight in gold.

I want to correspond and conclude a deal with one dealer as above, who wants to increase his business and expects to stay where he is, and who is worthy of credit and confidence.

Remember I am only going to deal with one in a county, and in such a way that he will be protected from all outsiders. This is no humbug or swindle, and not a cent will be required of you until after you have made money at my expense.

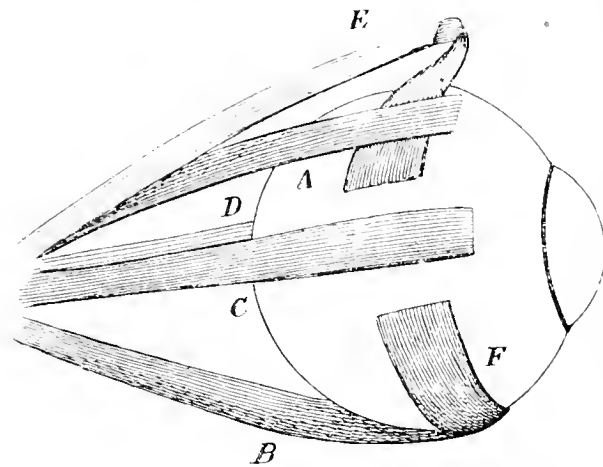
Address,

THEO. NOEL, Geologist

857 West Polk Street

CHICAGO, ILL.

is convex on both sides, with a sharper curve behind than in front. Its length is about one-fifth, and its depth, when at rest, about one third of an inch. It is, however, much more rounded in a child than in an adult, and becomes flattened in old age on both surfaces, when it also loses some of its transparency. It is contained in a firm elastic capsule, thicker in front than behind. To the anterior surface of the capsule, at the margin of the lens, is attached the ciliary zone or suspensory ligament. This ligament retains the lens in its proper position, and by its tension on the anterior surface keeps the lens flattened. It branches off from the hyaloid at the ora serrata, where the retina terminates and the ciliary processes commence, and thus forms a connection between the retina and the lens. It is received between and corresponds with the flutings of the processes, and stretches out with these when necessary to relax the tension of the lens. The triangular canal of Petit surrounds the crystalline lens, being the space between the back of the suspensory ligament, the front of the vitreous humor and the edge of the crystalline lens.



The external muscular system consists of the external or motor muscles which move the eyeball. They are, described simply: *

A	The superior rectus	which pulls the eye	upwards
B	" inferior "	" "	downwards
C	" external "	" "	outwards
D	" internal "	" "	inwards
E	" superior oblique "	" "	outwards and downwards
F	" inferior "	" "	downwards and upwards.

These muscles, except the inferior oblique, take their origin at the back of the eye from a ring that surrounds the sheath of the optic nerve. They are all attached to the sclerotic, the insertion of the four recti being not far behind the cornea.

The action of the four straight muscles, the recti, is very simple and easily understood. They are attached to the front part of the globe, and by a direct action move the front of the eye to a certain position. The action of the obliques is, however, rather more complicated; the superior oblique takes its origin on the nasal side of the orbit, passes forward through a loop

* The more complex working of the motor muscles will be described later

and then backwards obliquely, and is attached to the top of the globe towards the back of it. When it contracts it pulls the back of the eye up and in, and therefore causes the cornea to be turned down and out. The inferior oblique passes from the nasal side also, under the globe and by its contraction pulls the back of the eye down and in, and so causes the cornea to be turned up and out. The eye can be directed to any intermediate point by the combined action of some two or more muscles, and the muscles of the two eyes work in such unison as causes the latter to be turned to the same object.

The motor muscles are in pairs. The superior and inferior recti constitute one pair; the external and internal recti are another; and the superior and inferior obliques are the third. Each of the two muscles of any pair is the antagonist of the other, and it is the constant tension of each one of the six muscles that keeps the eye in its proper position. When one muscle of any pair contracts, its antagonist relaxes its tension, and so the eye is turned by the contracted muscle into the desired direction.

The movements of the eye are on three different axes of rotation, and the central point of the motion (where the axes cross each other) is the centre of rotation. This is about the middle of the vitreous. The muscles, when at rest, keep the eyes in such a position that they are directed straight forward but inclined rather downward. The action of the motor muscles is called convergence.

A line drawn from P to Q straight through the centre of the eye is the optic axis; this is not the line of vision. The latter is the visual axis, which may be considered as a line drawn from O, the macula lutea, to R, the object looked at. The macula is situated about 6 mm. from the blind spot, rather below and to the temporal side of the posterior pole. The visual axes of the two eyes are so inclined towards each other that they meet at a point about twenty feet distant; each visual axis issues from the cornea slightly to the nasal side of, and slightly above, the anterior pole. Thus with the two eyes perfectly at rest the same object is pictured upon corresponding parts of the retina of each. To have perfect binocular vision, that is, vision in the two eyes at the same time of the same object, it is absolutely necessary that the images of the object seen be so refracted on to the retina that the macula occupy the exact centres of each picture.

(To be continued.)

According to reports from the Lipari Isles, so extensive are the deposits of pumice-stone that the supply is practically inexhaustible. The only menace to the pumice industry is said to be an artificial pumice introduced by the Germans.

Practical Hints on Advertising.

Copyrighted 1895, by CHARLES AUSTIN BATES, New York.

I don't believe in cute advertising. It may pry in the show business. I've heard that it does.

The other day I asked a theatrical manager whether he had ever tried newspaper advertising alone and unaided by posters. He said he had. Said he had tried posters alone, too, and that a combination was better, but he said: "Novel ties and startling effects are best of all."

That is for theatricals.

Business methods and show methods must, of necessity, differ. A show stays a day, or three days, or a week. May never come again. Must get all it can then, and get it quickly. There must be a "hurrah." The more people are startled, and the more their curiosity is aroused, the better.

It isn't that way in a mercantile business. That stays. The longer it stays in one spot the better—if it is properly conducted.

Show methods of advertising will beget suspicion. Can't have "startling reductions" and "bankrupt" sales every day. That doesn't mean never have a sale. Have plenty of them, but find a good, honest reason for each one, and "fight it out on that line." Remember the boy who cried "Wolf!" and don't say anything startling unless it can be backed up with the facts. If you cry "Wolf!" let folks hear him howl.

* * * *

Don't be too distinctly original in your advertising. Don't try to startle people with your wit.

The successful new idea is the one that everybody has unconsciously recognized for a long time. Don't get beyond the age.

* * * *

Do you advertise (God save the mark!) on the backs of restaurant bills of fare? Do you put a card in the book "for the benefit of the fire department"? Do you subscribe to the "Industrial Progress" book, and have your picture in it as a prominent business man? Does the "society" programme catch you? Are you susceptible to the blandishments of the gentleman who puts beautiful charts in all the railway stations?

Do you take "a space, the only one left," in a thousand and one schemes that come around every year? Do you suppose you ever got a cent's worth of benefit out of any \$100 you ever spent that way?

If all the dollars that are diverted from the newspapers into these and similar channels were used in buying space in the best paper in town, there would be fewer merchants who say that advertising is a doubtful undertaking.

There's nothing doubtful about it. It is as sure as any other business transaction. The funny part of it is, that it is generally given less attention than any other department of a business.

The contract once made, and the space decided upon, the average merchant advertiser's interest seems to die. Even a neglected ad. in a good paper will do some good, in spite of the advertiser's apathy. A good advertisement will always bring profitable returns, if placed in a paper whose price for space is based on an honest circulation statement.

And if I were an advertiser I would not use a paper that refused to prove its circulation. Circulation is what he is buying, and he has the right to know the quantity. And bare assertion isn't proof—not by several thousands sometimes.

* * * *

Advertising is business news. It tells of things which are of great daily importance. It is of more account to the frugal housewife to know where she can get certain necessary commodities at a less price than usual than are all the troubles in Siam or Alaska.

The news should be news. It should not be allowed to grow stale with repetition in the same old way.

* * * *

It is continuous effort that pays in advertising, as in everything else. A business man doesn't keep his store open one day in the year, or one week in the month, or three months in the year. If he advertises that way, that is the impression people will get. It is continuousness that has made each letter in the word "Royal" before the words "Baking Powder" worth over \$2,000,000. The owner of Royal Baking Powder recently refused \$12,000,000 for his business—a business built up and fostered by persistent advertising.

* * * *

People are very forgetful. They have to think pretty hard to remember the vice-presidential candidate two campaigns back, and yet he was pretty well advertised at the time. It has been truly said that the time to advertise is all the time. In business there is no such thing as standing still. A business man must go forward or he will fall back. Even if you do just as much business this year as you did last, some other fellow is doing more business, and he is getting ahead of you.

Each year's effort should be to exceed last year's sales. The only sure way to do it is to advertise. Advertise in busy times, because the iron must be struck while it is hot, and advertise in dull times to heat the iron. It can be done.

* * * *

When a contractor is in a hurry to drive a long plank down the side of a new sewer, he sets two men at it. Each, with a big maul, hits it alternate blows as often and as hard as he can. The strokes come as evenly as a pendulum swings.

One man and one maul would drive the plank down, but it would take longer.

The bigger the maul, the quicker and easier he will do the work.

Two men, or a dozen, with tack hammers, would not get the plank driven in a hundred years.

There's a parallel to this in advertising. If you're in a hurry to drive your business, use two papers, and make the advertising maul—the space—as big as possible.

If you haven't money enough to buy two big mauls, only buy one, use only one paper—the best—and make the space big enough to be felt.

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Ammonium chloride, in a slightly moist and finely granulated condition, can be compressed into tablets without any preparation.

Calomel with sodium bicarbonate requires special treatment. Sodium bicarbonate, 630 grains, and gum arabic, 30 grains, are mixed and damped with water, then passed through a No. 40 sieve, dried, and bottled. Calomel, 90 grains, is added in the bottle, and the latter shaken until all the granules are coated. Finally compressed into tablets (McFerran).

Charcoal and similar spongy bodies must be in impalpable powder, and should be granulated by the addition of at least 25 per cent. of cane sugar. They require no lubricant, as a rule, and should be fed to the machine in a very fine granular form. The granules should be passed through a No. 12 sieve, dried, and then reduced until they will pass through a No. 60 to 80 sieve. A solution of gelatin may be employed instead of sugar, in which case a little French chalk should be added afterwards.

Effervescent mixtures should have their constituents granulated separately, and mixed in a perfectly dry granular condition just before being compressed.

Extracts require varying treatment, according to their condition. Powdered extracts should be mixed with starch powder before treating by the foregoing general process of Coblentz. Solid extracts should be rubbed to a syrupy consistence by the aid of a little water; the excess of water is then absorbed by the addition of about 25 per cent. of starch powder, the mixture being left sufficiently moist to form a proper consistence or granulation. Fluid extracts should be evaporated to a syrupy consistence, and

For convenience of reference details are here given of a number of special cases considered by Coblentz (Handbook of Pharmacy), McFerran (Pharm. Jour. [3], xviii, 272), and Remington (Practice of Pharmacy), whose writings may be consulted for further particulars. Though sieves with meshes of various sizes are mentioned, a No. 30 sieve will usually prove fine enough in almost every case.

then treated in the same manner as solid extracts.

Hygroscopic or deliquescent bodies will need the addition of gum in the proportion of one-tenth the weight of substance, water being used for moistening.

Hypodermic tablets may be made with sugar of milk (see below) as a basis, but dried neutral sodium sulphate and purified sodium chloride or ammonium chloride are frequently preferable.

Insoluble substances, such as acetanilid, phenacetin, sulphonal, etc., are best granulated with one-tenth their weight of cane sugar, water being used for moistening.

Pepsin in powder should be prepared by adding to it one-tenth its weight of cane sugar, then spraying with diluted alcohol (50 per cent.), and mixing to insure moistening of all the particles. The powder should then be capable of passing through a No. 80 sieve, and, after drying, is ready for compression. Scale pepsin requires only to be reduced to No. 30 or 40 powder and then lubricated.

Potassium bromide and iodide simply require crushing, and should then be treated in the same way as ammonium chloride.

Potassium chlorate should be used in the same condition as ammonium chloride, and is very readily compressed.

Quinine sulphate requires similar treatment to charcoal, but if, instead of French chalk, a little finely powdered arrowroot or ethereal solution of white paraffinum molle be added, the tablets will disintegrate more readily.

Rhubarb and soda, in combination, require one-tenth their weight of cane sugar, and should be granulated by means of a mixture of liquid glucose, 1 volume; water and alcohol, 3 volumes.

Salicylic acid should be treated like charcoal, quinine sulphate, and substances of similar nature.

Salol and phenacetin can be made into tablets by adding starch, moistening the mixture with alcohol, passing through a No. 20 sieve, then slightly warming, granulating, and drying prior to compression.

Salts containing water of crystallization should be reduced to fine powder, then mixed with one-twentieth their weight of powdered gum arabic, moistened, and passed through a No. 12 sieve. The granules must then be dried and again powdered, mixed with one-tenth their weight of cane sugar, and moistened with just enough water to pass again through a No. 12 sieve. After drying, first spontaneously, but finally by the aid of heat, pass the mixture through a No. 20 sieve, lubricate, and compress.

Scale preparations generally require the same treatment as scale pepsin, which see.

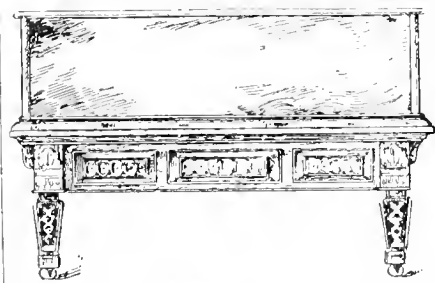
Sugar of milk, when used as a vehicle for powders to be compressed into tablets, should be moistened with a mixture of 1 part of syrup and 2 parts of water.—*Western Druggist*

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Deafness	after all else	Head Noises
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Deafness	remain deaf	Head Noises
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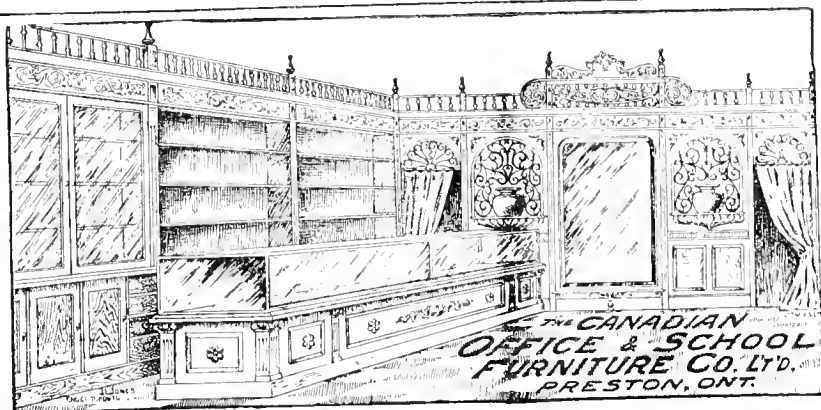
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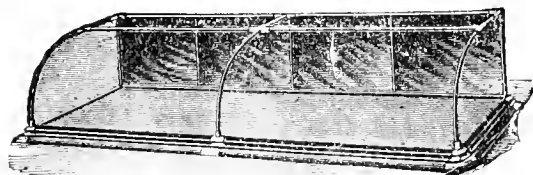
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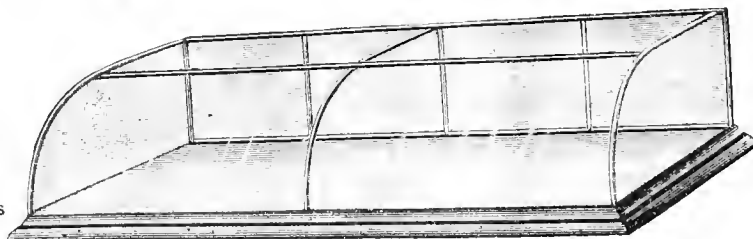
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Camphor Industry.

The island of Formosa, or, as named by the Portuguese, "the beautiful island," and known to China as Taiwan, signifying "terrace bay," is the place where most of the camphor of Western commerce is produced.

The island is a most productive one, alike rich in vegetation and minerals, but it is the geographical position which makes it a place of extreme importance with regard to the Eastern trade. Swatow, Amoy, and Foo-choo lie within the Formosa Channel, while every vessel bound to and from the northern ports and Japan must pass through it. The total value of the foreign trade of Japan is over twelve millions, and of this Great Britain absorbs more than two-thirds. Of the many products of Formosa, the chief is camphor, and the greatest part of this product is obtained from the wood of a tree, the *Camphora officinarum*, belonging to the natural order, *Lauraceæ*, but, unfortunately, the laurel grows only in certain districts in the island, chiefly in that portion included within Chinese territory; it is mainly confined to the country of the aborigines and its immediate borders. In consequence of the disturbed relations between the races of the island thus induced on the borderlands, the risk attending camphor collection is very great, the distillers requiring to be always on their guard, for a Chinaman's head is a patent of nobility to an aborigine, for without one he is excluded from the council of his tribe, and, owing to the disturbed state of affairs in the East generally, camphor is likely to be a somewhat scarce commodity for years yet to come. The trade returns for four months to April 30th last show only 4,785 packages imported into England, as against 13,204 in 1894, and 8,631 in 1893, for the same period. To such as are unacquainted with Formosa, it is quite impossible to describe a virgin forest such as those met with in the island. The vegetation generally is characterized by tropical luxuriance, and in the mountain regions in the dense forests the various species of palms, aloes, and the magnificent camphor trees are conspicuous; the last covers the whole line of mountains from north to south up to an elevation of 2,000 feet above sea level. The tree grows to a considerable height, sometimes as much as 50 feet, and has a girth of 20 feet, with branches of 8 or 9 feet in circumference; the leaves are smooth, and the trunk is covered with a flat, greenish bark; the whole, with the roots and wood, have a strong odor of camphor. This product is found to lodge everywhere in the interstices of the fibres of the wood, also in the pith, but most abundantly in the crevices and knots. From the dangerous circumstances connected with the collection of the drug, there is a great possibility of its extinction, as the extraction of the camphor entails the destruction of the tree, and this destruction has never

been compensated by re-planting: so that the forests are being gradually cleared away, the aborigines receding, and the Chinese encroaching as the work of destruction has progressed. But, somewhat to counteract this evil, the laurel has received attention from experts, and has now become naturalized in some of the tropical and warmer countries, such as Java, Brazil, Jamaica, and the West Indies generally, Mauritius, Madeira, and the Mediterranean region. It forms a large and handsome tree in sheltered spots in Italy, as far north as Maggiore; it may be found in the nurseries of Paris, and is not altogether unknown in England.

But it is Formosan camphor that we specially note, and it is a novel and exciting adventure to accompany a band of camphor merchants meaning business, taking our lives in our hands, as the whole work, from beginning to end, has to be done in an enemy's country, and that enemy of a relentless character. Preparations being duly made, not only for collecting and producing the drug, but for our own sustenance and protection, the party sets out, the district having been prospected beforehand and the spots selected. The trees chosen are those remarkable for the abundance of their sap, many being too dry to repay the cost of time and labor. The best part of the wood is secured for timber, which is in much request for carpentry and cabinet work. The branches and refuse are then taken while freshly cut, and chopped into small pieces for distillation.

The stills, built up in sheds, are of the simplest and rudest construction; these are moved as the advance is made from stage to stage, so that elaborate fittings would be cumbersome and out of place owing to this shifting at short intervals. About eight or ten fires are laid on the ground, over which is placed a long trough made of wood; this trough is lined with clay and half filled with water; upon this boards are placed, pierced with holes which fit the trough; then rough jars are fixed containing the chips, which have been already prepared. These, again, are covered with inverted jars, and the whole made air-tight by jacking.

The fires are now lit, and the steam passes up through the holes in the boards; this soaks the chips in the jars and causes the sublimated camphor to settle in crystals on the insides of the pots, from which it is scraped off, and then passes through a second process of distillation in order to remove impurities. At the bottom of a copper still is placed a bed of dry, powdered earth, if possible from an old wall—but this is not often get-at-able in a primeval forest—for the sake of the lime it contains, and on this is laid the crude camphor: this is again covered with earth, and so on alternately, until the vessel is full, the whole terminating with a layer of earth, which is finally covered with green mint. A second vessel, generally made of straw smeared with clay on the out-

side, is placed over the still and luted on. This is then fixed over a fire, and allowed to remain for a considerable time. After cooling, the camphor is found sublimed and attached to the upper vessel. When a sufficient quantity is obtained, it is then packed in large vats or tubs provided with escape holes at the bottom, and through these holes exudes an oily liquid known as camphor oil, of a yellowish brown color. The exudation from the mass is to the extent of about 3 per cent. This liquid is of a very strong smell, and holds in solution an abundance of common camphor, which it deposits in crystals when exposed to a low temperature, its density being 0.910. By exposure to oxygen, or the action of nitric acid, it absorbs oxygen and becomes solid camphor. This oil is much used by Easterns as an embrocation in rheumatic diseases, and bids fair to become a valuable European import as a cheap substitute for *Lin. camphora*. It is not, however, saleable on the spot, as it is inferior to the Malagan camphor oil, from which it is distinguished by the odor of sassafras. In Japan the oil is used for lighting purposes by the poor folk, and it is said to be superior to kerosene both in cheapness as well as in illuminating power.

The product of the forests, in a crude state, is shipped from Tamsui, which is a free trade port at the northern extremity of the island, this being the characteristic export of the place, forming, as it does, the main supply of the European markets.

From this place it is conveyed by native crafts to various ports of China. Until the year 1868 the Chinese government enjoyed a monopoly of the Formosan camphor trade, but it was then thrown open, with very beneficial results. In 1870 and 1871 attempts were made to re-establish the monopoly under cover of a tax of less than a farthing per pound, in itself unimportant; but with the removal of the objectionable feature of the import the merchants have rested content. But as the supply of the trees and laurels in the island is being gradually exhausted, other countries have considered the matter, especially those adjacent. A small quantity of the drug is produced at Chinchew, in the province of Tokien, on the China mainland. The method of preparation here differs somewhat from that of Formosa. The freshly-gathered branches of the laurel are chopped into small pieces and steeped for some days in water; they are then boiled in a suitable vessel, being continuously stirred with a stick until the grains adhere to it in the form of a white jelly. The fluid is then poured off into glazed vessels and allowed to rest for some hours, when the camphor is found in a concreted mass. In Japan the laurel is found in the three principal islands. It flourishes best in the southern portions of the empire, Toza and Sikok; the mild, damp sea air favors its growth, and the principal preparation of

the drug is carried on in these localities. Japanese camphor is distinguished from Formosan by being coarser grained, clearer, of pinker hue, and by subliming at a lower temperature.

It is also known as "Dutch" or "tub" camphor, the latter name arising from its being imported into Europe in tubs covered with matting, each placed within a second tub, secured on the outside by hoops of twisted cane. No metal lining is used, and the camphor is thus drier than the Formosan. Each tub holds about 1 to 1¼ cwt. The selling price is nearly twice as high as the Formosan, and the imports to Europe are about as 1 to 6.

In India the refining of common camphor is a process of itself. The oil is absorbed by means of quicklime; two earthen pots are luted together, having a small aperture for the escape of the air on the first application of heat. Camphor is mixed with water in proper proportions, and put into a copper still; more is added, and a copper lid is then put on, and to make it perfectly tight an iron bar is passed through it and the vessel, by holes made for the purpose. The still is then lifted by handles and set on an earthen *chula*, below which fires are burning. The lid and edges of the still are smeared with wet clay, which is piled up into the shape of a cone. In about fifteen minutes steam comes through the hole where the bar goes, whereupon a cloth attached to a bamboo is dipped into a receptacle filled with water and mopped over the clay cone on the still, so that the water keeps the upper portion cool. This is maintained for three hours, when the sides of the still are beaten by a stick. If this produces the sound of an empty vessel, it is known that the process of sublimation is complete; the still is then removed from the *chula* and the lid is opened. The camphor is found in a thick crust lining the upper part of the sides of the still; it is divided into four pieces by a knife, then packed, and is ready for market. Such is the Indian process.

The refining of camphor was for long confined to Venice, but it is now carried on in England, Holland, Hamburg, and Paris, the product being much finer and purer than that obtained by crude processes such as that described.

One other kind of camphor still remains to be mentioned—that is, the Ngai camphor. This is manufactured at Canton and in the Island of Hainan, the plant from which it is obtained being the *Blumea balsamifera*, called in Chinese, Ngai, abundant in tropical Eastern Asia. As this product is about ten times the price of Formosan camphor, it never finds its way into Europe as an article of trade. It is consumed in China, partly in medicine and partly in perfuming the finer kinds of Chinese ink. The export of this camphor by sea from Canton is valued at about £3,000 per year. It is also sent from Kiung chow, in the Island of Hainan. —*The Produce World*.

A Fluorescent Constituent of Calumba.

By ALEXANDER GUNN, F.C.S.

There are probably few pharmacists who have not experienced the difficulty of obtaining fluid preparations of calumba in a brilliant condition. Whether tincture, fluid extract, or infusion, it is found to be a matter of impossibility to remove the turbid appearance by any mode of filtration.

In dealing with concentrated liquid preparations of calumba the difficulty is accentuated, the appearance of such preparations being frequently akin to that of pea-soup. Careful observers may, however, have noticed that such solutions, when examined by transmitted light, are perfectly translucent, and that there is evidently no trace of solid matter in suspension.

The firm with which I am connected frequently receives complaints from pharmacists of the turbidity of its calumba preparations, and occasionally the preparation itself is returned as "unfit for use." When it is pointed out that the turbidity is only apparent, and that the opalescence is due to phenomena of optical interference, the explanation is accepted with more or less hesitation, and it appears desirable that some positive evidence should be obtained to prove the correctness of the theory. During the last fortnight I have been engaged in investigating the matter, with results sufficiently encouraging to induce further research.

To demonstrate in a striking and simple manner that calumba contains a fluorescent body, half fill a test-tube with B.P. tincture of calumba. Examine this by reflected light, and it will be seen that there is a fluorescence of a pronounced green tint. Add now a few drops of liquor potassæ, and again observe by reflected light; the fluorescence now is of a velvety deep blue or violet color.

Although I have not at present been able to obtain the fluorescent constituents in a sufficiently pure condition to ascertain its nature, I have found the following plan successful in partially separating it from the coloring matter of the tincture:

Take 50 c.c. of the tincture and acidify with 5 c.c. dilute hydrochloric acid. Shake with a sufficient quantity of ether to form a distinct layer on separating. The yellow ethereal solution is shaken with purified animal charcoal during a quarter of an hour and then filtered. The filtrate is now gently shaken with a 1 per cent. solution of ammonia in water. There is a floccy precipitate thrown out of the ammoniacal solution, but on filtration the fluorescence will show up beautifully.

In order to isolate the fluorescent body and to ascertain its composition, I take a strong proof spirit percolate of calumba (say, of such a strength that 1 = 1), mix with about three times its volume of distilled water, and stir in some magnes. calc. and kieselguhr, which help, although im-

perfectly, to remove something that interferes with the proper extraction of the fluorescent body. Allow to stand for a day or so, shaking up occasionally, and then filter; add about an equal volume of dilute sulphuric acid, shake with ether, and separate the ethereal liquor, which is of a slightly yellow color. The acid liquid will then be free from fluorescence. The ethereal solution when shaken with ammoniacal water yields the fluorescence to the latter.

I cannot imagine that this fluorescence is due to any already known constituent of calumba. Such a property as fluorescence in an isolated body is, one would suppose, too obvious to be overlooked. — *Pharmaceutical Journal*.

Disinfection of Vaults and Cesspools.

Dr. Vincent recently reported to the Academy of Sciences at Paris the result of experiments for the purpose of determining the best disinfectant for rendering faecal matters innocuous. He required of each disinfectant that it should kill all pathogenic microbes, including the bacillus coli communis and the bacteria of putrefaction. His experiments showed that the best of all disinfecting agents for the destruction of faecal matters in vaults and cesspools is sulphate of copper employed in connection with one per cent. of sulphuric acid. The quantity of sulphate of copper required was one pound for every three cubic feet of faecal matter mixed with urine. Half this quantity was found sufficient to destroy the cholera bacillus. It was found necessary that the disinfectant should remain in contact with the infectious material for at least twelve hours. — *Modern Medicine*.

The New Zealand Pharmacy Bill.

The New Zealand Pharmacy Bill is dead. It has suffered shipwreck upon the unwillingness of the bulk of the registered chemists of the colony to allow men, now unqualified, but carrying on business as herbalists, etc., mostly in out-of-the-way places, to be incorporated into their ranks. That was the price the pharmacists were asked to pay for an Act that would have conferred substantial benefits upon them, and they refused. The signal was a letter from the New Zealand Minister of Railways (who had charge of the bill) to the Pharmacy Board, stating that, owing to the very conflicting opinions among members of Parliament, and the number of letters and telegrams received by the Government, complaining of various clauses of the bill, as well as the feeling that the proposed amendments would not be favorably received by the chemists themselves, the Government had come to the conclusion that there was no alternative but to drop the measure altogether. — *Chemist and Druggist*.

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Borine possesses a fragrant odor and a very agreeable pungent taste. It mixes with water in all proportions, and is compatible with most of the preparations of the pharmacopoeia. It does

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This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis, and all diseases of the Chest.

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The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

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Formulary.

Ichthyol Powder and Paste.

Leistikow calls attention to the remarkable efficacy of ichthyol in relieving the pain of burns. He recommends its use as powder in soft paste and as a salve mull, giving the following formulae:

Powder—	
Zinc oxide.....	20 parts.
Magnesium carbonate.....	10 "
Ichthyol.....	1 to 2 "
Paste—	
Calcium carbonate.....	10 parts.
Zinc oxide.....	10 "
Starch.....	10 "
Olive oil.....	5 "
Lime water.....	10 "
Ichthyol.....	1 to 3 "

—*Monat. f. prakt. Dermat. ; Pharmaceut. Journal.*

SALICOL CREAM.

The following is accredited to *l'Union Pharmaceutique* in the *Drogisten Zeitung*:

White wax.....	100 gm.
Spermaceti.....	100 "
Almond oil (sweet).....	450 "
Distilled water.....	100 "
Glycerin.....	100 "
Salicylic acid.....	8 "
Coumarin.....	3 cgm.
Essence of musk.....	6 drops.
Oil of neroli.....	4 "
Attar of rose.....	4 "
Oil of bergamot.....	4 "
Oil of wintergreen.....	8 "
Attar of Ylang Ylang.....	2 "

Mix and make a cerate.—*National Druggist.*

FAVORITE COUGH SYRUP.

Syrup of tolu.....	2 fl. oz.
Glycerin.....	4 fl. "
Compound syrup of squill.....	6 fl. "
Syrup of ipecac.....	6 fl. "
Tincture of lobelia.....	6 fl. "
Paregoric.....	6 fl. "
Fluid extract of pilocarpus.....	2 fl. "
Chloride of ammonium.....	1 "

Mix.

Take a teaspoonful three times during the day, and every hour or two before going to bed.—*Meyer Bros. Druggist.*

DEPILATORY PASTE.

Metlinger (in the *Revue Internationale de Médecine et de Chirurgie*, etc.) gives the following formula for an epilatory paste:

Glycerin.....	4 parts.
Lard.....	8 "
Cacao butter.....	8 "
Castor oil.....	16 "
Liquor sodæ (1 : 4).....	16 "
Starch.....	1 "
Sodium sulphide.....	8 "
Essence of citronella.....	1 "
Water.....	17 "

Mix.—*National Druggist.*

WITCHHAZEL PILE OINTMENT.

Lanolin.....	4 oz.
Petrolatum.....	12 "
Glycerin.....	8 "
Distilled extract witchhazel.....	4 "

Tannin.....	2 dr.
Opium, powdered.....	2 "

Mix the lanolin and petrolatum; add the glycerin in which the tannin has been dissolved; then rub the extracts and opium with the distilled witchhazel, and incorporate with the ointment.—*Bulletin of Pharmacy.*

A NEW AND EFFECTIVE LAXATIVE.

Leube (*Pharmaceutische Centralhalle*) recommends the following:

Rhubarb in powder.....	1 oz.
Sodium sulphate, anhydrous.....	½ "
Sodium bicarbonate.....	4 scr.
Essence of peppermint.....	10 drops.

M. A teaspoonful in a glass of water at night on retiring.

LIGHTNING IODINE LINIMENT.

Iodine.....	10 gr.
Camphor.....	75 "
Oil rosemary.....	25 "
Chloroform.....	100 "
Alcohol.....	600 cc.

Dissolve and add

Tincture opium.....	75 "
Ammonia.....	enough to make 1000 "

Put up in amber, rubber-stoppered vials. *F. Edel, in Bulletin of Pharmacy.*

INDELIBLE INKS FOR METAL AND GLASS.

Schoebel, in the *Fortschritte der Medizin*, recommends the following inks for labeling glassware, metal, etc.:

Black.—Sodium silicate, 1 to 2 parts; liquid India-ink 1 part.

White.—Sodium silicate, 3 to 4 parts; Chinese white (Windsor & Newton's), 1 part. Barium sulphate may be used instead of Chinese white, in the same proportion.

The bottles containing these inks should be kept air-tight, and, of course, should be thoroughly shaken before using. Steel pens may be used for writing with these preparations. The editor of the *National Druggist*, from which this extract is taken, says that he has long used India-ink in silicate of sodium solution for marking microscope slides, etc.

Cure for Dead Beats.

In Corea they may not be very highly civilized, but their collection law seems to work well. A Japanese authority says the Korean law declares as follows: "One who owes money and at the promised time fails to pay it, whether the debt be to his majesty the king, or to another person or persons, shall be beaten two or three times a month on the shin, and the punishment shall be continued until the debt is discharged. If a man die in debt, his relations must pay that debt or be beaten two or three times a month on the shin."

Saccharin is used as a deodorant antiseptic in ozena and ordinary colds

Photographic Notes

Direct Reproduction of Negatives.

The following, from *Wilson's Photographic Magazine*, is interesting. In 1880 Bolas communicated to the Photographic Society of Great Britain the following process: A bromide of silver gelatine plate is bathed in a 4 per cent. solution of bichromate of potash, then dried. Exposed in a printing frame under a negative, a very delicate positive results. It is washed and developed; here the character of the picture changes rapidly; the clear parts become dark and dense, while the places first colored by the light remain unchanged, appearing light by contrast. After washing it is fixed. Balagny, in 1889, has developed this process still further, and with the best success. He gives the following description of his modification: Both gelatine plates and films may be used. Balagny prefers the latter, because they make closer contact. The following bath is prepared: Water, 1 litre; bichromate of potash, 30 grammes. This keeps well. Before using, 50 C.m. of alcohol of 40° is added. This quantity is sufficient for twelve plates 15 × 21 C.m. The plates should be somewhat larger than the copy, for the negative must have a black margin all around. Each plate is placed into the bath, film side up, for five minutes. If air-bubbles form, they must be removed with a soft brush kept for this purpose. From the bath the plates or films are removed to a very clean plate-glass, face down, and all liquid removed with a squeegee. The backs are wiped with a linen cloth. The films are then placed on a drawing-board, face up, and fastened with wooden pins by the corners. The drawing-board, thus covered with films, is left in the dark room till the latter are dry, when they are removed and kept between blotting-papers under pressure, to prevent curling. First, exposure to light. The negative to be copied is placed in a printing frame supplied with good springs; a black paper mask is so placed upon it as to leave a margin of three-quarters of a millimetre all round. Upon this the bichromatized film is placed, and printed the same as common prints—ten, twenty, thirty minutes in diffused daylight. To avoid fog, the films should not be examined by daylight. Second, light exposure. The printing frame is taken into the dark room, the film taken out and placed into a dish with water. The water must be renewed several times, after which the washing must be continued for ten minutes in running water. Every trace of chrome salt must be removed. So far, by the first light exposure, the bichromate of gelatine has been rendered insoluble in those parts which are clear in the negative. Consequently, these insoluble parts are closed against the developer. The parts protected from the lights have not been changed, and in the half-tones solu-

bility is only partly lost. The soluble bichromate salt has been removed by washing, and there remains a non-affected bromide of silver film in the form of a latent picture. To render this visible is the next move, to accomplish which the film is exposed to diffused light, and then treated with developer. In this way a negative is obtained from a negative, a positive from a positive. To carry this operation through with uniform success, Balagny lays down very positive rules. He says the washing dish must be absolutely clean; the slightest trace of developer causes stains. The film must not be touched with the hands. The plate-glass is to be thoroughly cleaned; a strong stream of water is passed over it, and the film, face down, placed upon it. All air-bells between film and glass are removed with a squeegee; a piece of black paper, soaked in water, is now placed over the film and squeegeed till not a bubble is visible. This is important. The front of the plate-glass is now wiped; it must be perfectly clean. The plate is now exposed to diffused daylight for from two to five seconds, according to the strength of the light. The black paper backing excludes, according to Balagny, all possibility of fog formation, quite common with this process from over-exposure, and the whites remain perfectly pure. Of course, as stated, the plate must be perfectly clean, as any adhering drops of water or impurities would be rendered in the copy. The film is removed from the plate in the dark room, and rinsed with water. The development: The developer is made in the usual way: No. 1—Water, 1 litre; oxalate of potash, 300 grammes. No. 2—Water, 1 litre; sulphate of iron, 300 grammes. For use, three parts of No. 1 are mixed with one part No. 2, adding a small amount of bromide of potash. The film, with a pincette (not the hands), is placed, face up, into a very clean glass dish, and the developer poured on. In a short time the picture develops like a common negative. By retarding development, a much stronger negative than the original is obtained, thus giving greater range. After washing, the fixing is done in five per cent. solution of cyanide of potassium. If hyposulphite of soda is preferred, then the bichromate bath should be used weaker, only about two per cent. strong, to prevent blisters. Balagny prefers cyanide, because it fixes quicker and washes out more readily. After washing a soft brush is passed over the film, to remove all dust-like iron salt. Another fifteen minutes' washing in running water, and the film is ready for the next operation. Glycerin application and drying: To obviate curling, the films are placed, well separated, into a mixture of: water, 1 litre; glycerin, 40 Cem. It is well to separate the films often, as each must have its full share of glycerin. They must remain two hours in this bath; no harm would follow if they were left twelve, or even twenty-four, hours in it. To dry

them, they are placed, face down, upon a clean glass plate, treated with the squeegee, their backs wiped with a linen cloth, arranged between sheets of thick blotting-paper, which is gently rubbed with the hand, finally, face up, upon a board.—*Archiv. (Photography.)*

Foreign Photographic Formulæ.*

Aluminium for Flashlight.—Dementjeff states that 15 gr. of a mixture of aluminium powder; the so-called aluminium bronze, 1 part; potassium permanganate, 3.45 parts, burns in one-eightieth of a second.

Blue Transparencies.—Bujakowitch recommends the ferro-prussiate process for making blue transparencies. Ferric hydrate is precipitated from a solution of ferric-chloride by the addition of ammonia or caustic soda, the precipitate washed and dried. To prepare the sensitizing solution, 154 gr. of ferric-hydrate are mixed with 230 gr. of oxalic acid and 3½ oz. of hot water. When dissolved the solution is filtered, and it should be kept in the dark. Glass coated with plain gelatine solution, or else old dryplates, may be used; the latter should be thoroughly fixed and washed, and then immersed for three minutes in the sensitizing solution and dried. They require about thirty minutes' exposure in diffused light under a normal negative, and should then be developed with a 10 per cent. to 15 per cent solution of potassium ferridecyanide till they show the necessary vigor, and should then be soaked in a 3 per cent. solution of hydrochloric acid for about five minutes, and then well washed and dried.

Glycin and Pyro Developer.—Hertzka warmly recommends a combination of these two developing agents, and suggests the following formulæ:

No. 1.

(a) Water.....	7 oz.
Sodium carbonate.....	308 gr.
Glycin.....	62 "
(b) Water.....	7 oz.
Sodium sulphite.....	618 gr.
Pyrogallol.....	100 "
Sulphuric acid.....	2 to 3 drops.

For use, mix equal parts of a, b, and water. This gives soft results, specially suitable for portrait work.

No. 2.

(a) Water.....	7 oz.
Potassium carbonate.....	124 gr.
Glycin.....	31 "
(b) Pyro solution as in No. 1.	

For use, mix as directed for No. 1. This gives negative of greater density and great clearness, which are especially suitable for platinum printing.

No. 3.

(a) Same as in No. 2, but with 61 gr. of potassium carbonate in addition.	
(b) Same as in No. 1.	

Mix as in No. 1. This is very suitable for instantaneous work.

Increase of alkali produces more details in the shadows and lessens the intensity

* From Eder's *Jahrbuch*.

of the high lights, thus giving soft negatives. This should be used, then, for instantaneous work or under-exposure. Increase of glycin and pyro produces denser high lights and more contrast, and this will be useful for over-exposure and flat subjects. Dilution of the developer with water also gives softness. Old developer acts as a good restrainer, producing clearness, and is useful also in case of over-exposure.—*Pharmaceutical Journal*.

Advertising Axioms.

By J. WALTER THOMPSON, of New York.

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If you have something that the people need, advertise "with courage and faith," and the people at home and abroad will respond to your profit.

Do not forget that an advertisement in "perpetual motion," if it is good, will wear its way into the people's memory with consequent results to you.

Here is a suggestion—"Make your advertisement an argument deriving its force from the situation, and present it clearly to all to whom it is addressed."

By advertisers I mean those who know that advertising well done is bound to bring results; by business men I mean a very large class of manufactures who are "poor in the midst of great wealth," i.e., of possibilities of development.

Turpentine.

"Alas! for the future of the American turpentine industry," says *The Garden and Forest*. The long leaf pine belt of the South is being rapidly destroyed by the lumbermen and turpentine workers, both of whom conduct their business on what has been bluntly but properly termed the "robbing system." "Every evening," says the writer, "the sky is illumined by a dull red glare." The track of the turpentine workers is marked by a barren waste. The turf workers allow the fires to run through the tracks they have worked, and the resin on the scarified surface of the trees burns like paraffine. A spark is followed at once by a blaze which sweeps off thousands of acres of trees. The annual yield is 340,000 casks of spirits of turpentine and 1,490,000 barrels of resin, and to get this 2,500,000 acres of pine forest are being worked, and nearly 1,000,000 acres of forest primeval are being invaded annually. It is calculated that the long-leaf pine belt covers an area of 130,000 square miles, but the reckless cutting and tapping of trees has already caused a decline in the production, and the writer says significantly that the workers will find it more profitable in the long run to change their ways and work the forests "for fifty years instead of five."



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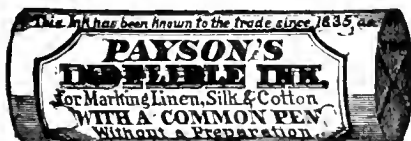
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If you do not want to pay in advance, send me an order now to send you the book when it is published, and I will mail you a coupon entitling you to "Brains" for three months, or to "Printers' Ink" for six months, take your choice.

After Feb. 1st there will be no premiums. The price will be \$5 straight.

Anyone who thinks that the book isn't worth \$5 may have his money back if he returns the book within ten days after its receipt.

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The first edition has been thoroughly revised and freed from typographical errors; in addition thereto, the third edition contains a treatise on Urinalysis, chemical and microscopical (fully illustrated), and a full index.

Ointments.

By R. H. MITCHELL.

When the 1885 Pharmacopœia was published the paraffins had become well established as ointment bases, but it is now admitted that sufficient discrimination was not exercised in their introduction into official formulæ. Hydrated wool-fat now holds a somewhat similar position, and it is to be hoped that the same mistake will not be made with this base.

Ung. Acid. Boric.—This ointment is anything but satisfactory, prepared by the B.P. method. It is much too hard for use in this country. A better preparation could be made by using five parts soft and one part hard paraffin, instead of four and two parts as ordered. Many surgeons prefer an even softer ointment, and for this reason I should suggest ung. acid. boric. molle to be made the same strength, with white soft paraffin.

Ung. Acid. Carbolic.—The same remarks *re* hardness apply to this ointment; but there is a more serious objection, and that is the strength. The B.P. ointment is too strong, and this is the cause of the dangerous crystallization that takes place. I would suggest that the strength be reduced to 1 in 30, as recommended by Squire, and the paraffins be used in the proportion of three soft to one hard.

Ung. Acid. Carbolic. Molle. prepared with soft paraffin, might also be introduced, as it is largely used by surgeons for smearing on the hands and instruments when conducting operations.

Ung. Acid. Salicylic. would be better if made with lard.

Ung. Aconitin., Antim. Tart and Atropin. do not call for particular mention, except that rubbing the antim. tart. with glycerin produces a smooth ointment.

Ung. Belladonna.—Neither the medical profession nor the public has taken very kindly to the color of this ointment. As an ointment it is satisfactory; but an equally good ointment could be made by using an alcoholic extract from the leaves.

Ung. Cantharidis.—The process for the preparation of this ointment is tedious, and, as it is seldom called for, Squire's suggestion of a liq. canthar. concentr. c. acetic. æther. might with advantage be adopted, and the ointment be made as required.

Ung. Cetacci.—The benzoin should be omitted from this, as it frequently causes irritation. A writer in the *Pharm. Jour.* recommends the Greek formula, which consists of equal parts of spermaceti, white wax, and olive oil. This may be all right for Athens, but in Liverpool it is more suitable as a base for wax candles than an ointment.

Ung. Chrysarobin.—The formula for this does not always yield a smooth ointment. The ointment I have here has the formula:

Chrysarobin 20 grs.
Glycerin 60 minims.
Benzoated lard 1 oz. avoird.

Rub the chrysarobin smooth with the glycerin and add the lard melted. The result is eminently satisfactory.

Ung. Conii requires no alteration.

Ung. Creasoti, Elemi, Eucalypti, and *Galla* are recommended for omission. The omission of the latter two would be a mistake. *Ung. eucalypti* would be better made weaker and softer.

Ung. Hydrarg.—The ointment I have here is made from Mr. Gerrard's suggested formula:

Take of
Mercury 12 parts.
Hydrated wool-fat 12 parts.
Benzoated lard 1 "

I find, however, that it is better to melt the wool-fat and lard and add to the mercury, instead of first mixing half the base with the mercury and then adding the other half. The result is a satisfactory ointment which is easily made at the dispensing counter and should keep well. This ointment should be called ung. hydrarg. fort., or strong mercurial ointment, and a diluted ointment known as ung. hydrargyri, or ung. hydrargyri mitius (English mercurial or blue oint.), should be introduced. The formula might be ung. hy. fort. 1 part, adeps benz. 2 parts. This I suggest not merely for economic reasons, but for medical reasons. If the B.P. preparation is sold for mercurial or blue ointment, it is apt to cause mercurialism and serious harm to the patient, or to the unsuspecting public in the habit of using such a preparation. Many doctors, too, are in the habit of ordering a milder ointment, so that it is advisable to have an authoritative formula.

Ung. Hydrargyri Co. is recommended for omission, but, as far as I can learn, it is still largely used by some practitioners. It is best made as suggested by Squire, viz., by melting all the ingredients together.

Ung. Hydrarg. Nitrat. is satisfactory. If the mild form be made with lard or simple ointment it would be a better formula from the medical point of view, and would, I fancy, not be so liable to discoloration.

Ung. Hydrarg. Oxid. Flav. should be introduced, as it is principally used for painting the eyelids for corneal ulceration. The following formula would be applicable:

Hydrarg. ox. flav. 5 grs.
Paraff. molle 1 oz.

Ung. Hydrargyri Oxid. Rubr.—A little tempest of criticism has centred round the B.P. formula for this ointment. Mr. Gerrard says that it is "bad, both medically and pharmaceutically," and that it can only be got smooth by making small portions and wasting much time over the final mixing. Certainly it is anything but an ideal formula; but it is not so bad as that. Medically, there is not much wrong with it, as it is used principally as a parasiticide and to check putrefaction in wounds, so that a non-absorbent

base is not inadvisable. The sample I have here is from the formula

Hydrarg. ox. rubr. 124 grs.
Paraffin. dur. 3 lbs.
Paraffin. moll. 13 "

This is the same strength as B.P., but the paraffins are 3 to 13 instead of 4 to 12.

Ung. Ichthyoli. This I should recommend as an addition. It is very largely prescribed by some physicians. I should suggest:

Sulphoichthyolate of ammonium 80 grs.
Hydrous wool-fat ½ oz.
Benzoated lard 1 "

Ung. Iodoform.—Keeps better if made with lard and soft paraffin, and it is a better ointment medically.

Ung. Picis Liq.—A writer in the *Pharmaceutical Journal* says: "This is a faultless ointment, retaining its consistent softness," etc. I think this writer must live in a warmer climate than I have been accustomed to. My experience leads me to say that this ointment is much too stiff. Squire substitutes half of the wax with almond oil, and Mr. Gerrard with hydrous wool-fat. I have here samples of both ointments, and you will agree with me, I think, that Mr. Gerrard's formula is the most suitable.

Ung. Plumbi Acet., Plumbi Carb., and *Pot. Sulphurat.* it is proposed to delete. The two former are not much used, but still they are worthy of a place in the B.P. The latter is used fairly frequently in some parts, and, if made fresh from the formula here suggested, leaves nothing to be desired:

Potass sulphurata 30 grs.
Rectified spirit 40 ms.
Benzoated lard 1 oz.

Powder the sulphurated potash, rub smooth with the spirit, and add the melted lard. Rub in a mortar till cool.

Ung. Plumbi. Oleat.—I think this would be a desirable addition. The formula most favored is Kaposi's, viz., lead plaster 1, soft paraffin 1.

Ung. Resinæ.—This ointment, like ung. hydrarg. oxid. rubr., is a constant source of annoyance. It is absurdly stiff. The ointment I have here is from the formula:

Resin 8 ozs.
Yellow wax 4 "
Olive oil 16 "

This is a little stronger in resin than the B.P., being 2 in 7 against 2 in 7½.

Ung. Sabinæ.—It is proposed to delete. If deleted it would be advisable to substitute an ointment made with the oil and benzoated lard.

Ung. Sambuci Viride might be introduced; but I have not come across a really satisfactory formula, and the commercial samples all show a tendency to bleach. This is a pity, because it is in frequent, popular demand for cracked nipples, and is sometimes prescribed for such.

Ung. Simplex.—Unsatisfactory; being lumpy, too hard in cold weather, and apt to become rancid. This rancidity is probably caused by too much stirring and heating, to form a white ointment. I

have not seen a satisfactory solution of this difficulty; but I would not on that account delete the ointment or substitute ung. rosæ (as suggested by Mr. Gerrard) for it. It might with advantage be made softer. This sample is made with half the quantity of wax.

Ung. Staphisagria.—This a very unscentific formula. The expressed oil should be used.

Ung. Sulphuris.—Those who have made this with sulph. præcip. will readily appreciate the improvement in the appearance and the ease of manipulation.

Ung. Sulph. Iodid.—As this ointment is used chiefly for acne, I think a more absorbent base, as benzoated lard, is preferable to the paraffins; and I should suggest that 40 minims of S.V.R. be added to each ounce to rub down the sulphur iodide with. The difference in smoothness, if this is done, is most marked. Mr. Prot, of Belfast, recommends dissolving the sulphur and iodine in the base; but this does not appeal to me as an up-to-date method.

Ung. Terebinthina is recommended for deletion, but it is sometimes prescribed.

Ung. Veratrina.—The base of paraffin in this is a mistake. I should recommend adeps benz. and hydrous wool-fat, equal parts.

Ung. Zinci and *Zinci Oleat.* are satisfactory.

In concluding these notes, I do not lay claim to any great originality, except in the case of ung. canthar. I have not suggested any changes that I have not tried and found to answer in practice. I have brought them before you with a two-fold object—first, to raise a discussion, in which may be elicited some points that may prove useful to the compilers of the forthcoming Pharmacopœia, and, second, to simplify the formulæ, so that every pharmacist can make all his own ointments with the least possible trouble. In doing this, I have cut my paper down as far as possible to leave time for discussion.
—*British and Colonial Druggist.*

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the special consideration of the Business Notices.

We congratulate our esteemed contemporary, *The National Druggist* (St. Louis, Mo.), on its energetic action in producing its December issue, although burned out, "lock, stock, and barrel," on the morning of December 2nd. Fire has twice made sad havoc with our contemporary's edition when just ready for mailing, but the elements cannot "down" the enterprise and push of such a concern as The National Druggist Publishing Company.

A Note from "Borine."

We constantly see in the medical journals how we intend to check the substitution of drugs. Naturally, when a physician prescribes a certain remedy he expects to get it, and no other. As pharmaceutical chemists, we want to stand by the druggist, do the advertising for him, and let him reap the profit.

In providing him with our preparation, we feel quite certain that the charge of substitution can never be brought against him. What the entire medical profession in all its branches has been looking for is an antiseptic that shall be a thorough germicide and prophylactic, with no toxic or irritating qualities, and adapted to both external and internal use. Such a one we offer you in Borine, composed of the active constituents of benzoin, wintergreen, meadow sweet, golden rod, witch hazel, combined with the stearoptenes of wild thyme, eucalyptus, peppermint, and boracic acid.

We want you to use it personally, and thus be able to speak to your clients from your own experience that it fulfils all that is justly claimed for it.

As a mouth and tooth wash it will inflict no injury upon the teeth. It is a safe and reliable preventive for all affections of the tongue, teeth, and gums in both adults and children. It is indeed the ideal antiseptic.

In affections of the nose and throat, rhino laryngologists term it a *specific*. In gynecological practice, Borine used as a douche, one tablespoonful to the pint of water in health or disease, will prove to be of most lasting benefit.

Tanglefoot—Reduction in Price.

The annual revision of the price of Tanglefoot has again been made, and the manufacturers are pleased to state to the retail trade that, owing to the favorable contracts made for raw material, new methods of production, and principally to the unprecedented demand and output of last summer, they can announce a reduction of 75 cents per case in "Regular," and 40 cents per case in "Little."

The prices to rule for 1896 will be:

"Regular" size—Less than one case, 45 cents per box; one to five cases, \$4 per case; five cases, \$3.75 per case.

"Little" Tanglefoot—Less than one case, 18 cents per box; one case, \$2.10 per case.

There is probably now no small article so profitable to the retailer as Tanglefoot, and hardly one other which receives a more hearty support from the retailer.

PHARMACISTS in France are forbidden to dispense prescriptions unless they be signed with the full surname of a medical man. A pharmacist has just been fined for dispensing a prescription with a counterfeited signature, this signature being written in an illegible style.

Books

SAMANTHA IN EUROPE. By Josiah Allen's Wife (Marietta Holley). Published by Funk & Wagnalls Company, New York. This book is one of those very readable ones which, while designed to amuse and edify, cannot fail to instruct. There is so much in it of actual life as we meet it every day, and, at the same time, told in a way which gives it a peculiar relish, that it makes the whole account of the travels of this wonderful company of travellers through Europe a most entertaining volume. We would advise our readers to procure a copy of the book; it will prove a decided diversion from the tedium of the business man.

HANDBOOK OF PHARMACY; embracing the theory and practice of pharmacy and the art of dispensing, for students of pharmacy and medicine, practical pharmacists, and physicians. By Virgil Coblenz, Ph. G., Phil. D., F.C.S., etc.; Pro-

WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc., will be inserted once free of charge. Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.

WANTED.

WANTED—SET OF MODERN DRUG FIXTURES, second-hand; must be good. "A," care CANADIAN DRUGGIST.

DRUG BUSINESS WANTED IN A LIVE TOWN or village; stock to invoice about four thousand, for which cash will be paid; correspondence confidential. Address, "Chchemical," care of CANADIAN DRUGGIST.

A Few Reasons WHY

DRUGGISTS SHOULD HANDLE

Dr. Story's 5-Minute Headache Cure:

First.—Merck says the formula cannot be improved.

Second.—10 cents is the popular price.

Third.—Out of 48 dailies, Ontario, we have a six-inch display and readers in thirty; will have all in 60 days.

Fourth.—We protect the druggist in that we never sell or allow our goods sold to Department, Dry-goods, or Grocery stores.

Fifth.—The immense profit.

KINDLY SEND AN ORDER TO

J. A. Kennedy & Co., London,

for 1 Gross of Dr. Story's 5-minute headache cure, at \$5.70 a gross, or 50c. a dozen.

Get ready for the boom. Don't wait, as this journal says, till you have a dozen calls, and your neighbor gets the benefit of the advertising.

STORY MEDICINE CO.

Cleveland, Ohio.



Ave Maria

The latest Aristocratic, Fascinating Perfume is creating a furore in the hearts of American Society.

Up-to-date Ideas in Perfumes Pay

SEND IN YOUR ORDER. EASILY SOLD.
SATISFACTION GUARANTEED.

One Oz. Glass Str. Bottle, 2 in Box, \$4.80
" " Screw Top " 1 " " 5.00
Two " " " 1 " " 8.00

NOT SOLD IN BULK

Send for Catalogue

Seely Manufacturing Co.

DETROIT, MICH.

WINDSOR, ONT.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to January 10th, 1896.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal.	\$4 37	\$4 65	Powdered, lb.	\$ 30	35	Myrrh, lb.	\$ 45	\$ 48
Methyl.	1 90	2 00	CARBON, Bisulphide, lb.	17	18	Powdered, lb.	55	60
ALLS ICE, lb.	13	15	CARMINE, No. 40, oz.	40	50	Opium, lb.	3 80	4 00
Pow dered, lb.	15	17	CASTOR, Fibre, lb.	20 00	20 00	Powdered, lb.	5 50	5 75
ALOIN OZ.	40	45	CHALK, French, powdered, lb.	10	12	Scammony, pure Resin, lb.	12 80	13 00
ANODYNE, Hoffman's bot. lbs.	50	55	Precip., see Calcium, lb.	10	12	Shellac, lb.	40	45
ARROWROOT, Bermuda, lb.	50	55	Prepared, lb.	5	6	Bleached, lb.	45	50
St. Vincent, lb.	15	18	CHARCOAL, Animal, powd., lb.	4	5	Spruce, true, lb.	30	35
BAL AM, Fir, lb.	40	45	Willow, powdered, lb.	20	25	Tragacanth, flake, 1st, lb.	75	80
Copaiba, lb.	65	75	CLOVE, lb.	16	17	Powdered, lb.	1 00	1 10
Peru, lb.	3 75	4 00	Powdered, lb.	17	18	Sorts, lb.	45	65
Tolu, can or less, lb.	80	85	COCHINEAL, S.G., lb.	40	45	Thus, lb.	8	10
BARK, Barberry, lb.	22	25	COLLODION, lb.	75	80	HERB, Althea, lb.	27	30
Bayberry, lb.	15	18	Cantharidal, lb.	2 50	2 75	Bitterwort, lb.	36	40
Buckthorn, lb.	15	17	CONFECTION, Senna, lb.	40	45	Burdock, lb.	10	18
Canella, lb.	15	17	Creosote, Wood, lb.	2 00	2 50	Boneset, ozs, lb.	15	17
Cascara, Sagrada.	25	30	CUTTEFISH BONE, lb.	25	30	Catnip, ozs, lb.	17	20
Cascarilla, select, lb.	18	20	DENTRINE, lb.	10	12	Chiretta, lb.	25	30
Cassia, in mats, lb.	18	20	DOVEK'S POWDER, lb.	1 50	1 60	Coltsfoot, lb.	20	38
Cinchona, red, lb.	60	65	ERGOT, Spanish, lb.	75	80	Feverfew, ozs, lb.	53	55
Powdered, lb.	65	70	Powdered, lb.	90	1 00	Grindelia robusta, lb.	45	50
Yellow, lb.	35	40	Ergotin, Keith's, oz.	2 00	2 10	Horehound, ozs., lb.	18	20
Pale, lb.	40	45	EXTRACT, Logwood, bulk, lb.	13	14	Jaborandi, lb.	45	50
Elm, selected, lb.	18	20	Pounds, lb.	14	17	Lemon Balm, lb.	38	40
Ground, lb.	17	20	FLOWERS, Arnica, lb.	15	20	Liverwort, German, lb.	38	40
Powdered, lb.	20	28	Calendula, lb.	55	60	Lobelia, ozs, lb.	15	20
Hemlock, crushed, lb.	18	20	Chamomile, Roman, lb.	25	30	Motherwort, ozs., lb.	20	22
Oak, white, crushed lb.	15	17	German, lb.	40	45	Mullein, German, lb.	17	20
Orange peel, bitter, lb.	15	16	Elder, lb.	20	22	Pennyroyal, ozs., lb.	18	20
Prickly ash, lb.	35	40	Lavender, lb.	12	15	Peppermint, ozs., lb.	21	22
Sassafras, lb.	15	16	Rose, red, French, lb.	1 60	2 00	Rue, ozs., lb.	30	35
Soap (quillaya), lb.	13	15	Rosemary, lb.	25	30	Sage, ozs., lb.	18	20
Wild cherry, lb.	13	15	Saffron, American, lb.	65	70	Spearmint, lb.	21	25
BEANS, Calabar, lb.	45	50	Spanish, Val'a, oz.	1 00	1 25	Thyme, ozs., lb.	18	20
Tonka, lb.	1 50	2 75	GELATINE, Cooper's, lb.	75	80	Tansy, ozs., lb.	15	18
Vanilla, lb.	6 00	8 50	French, white, lb.	35	40	Wormwood, oz.	20	22
BERRIES, Cubeb, sifted, lb.	30	35	GLYCERINE, lb.	22	25	Yerba Santa, lb.	38	44
powdered, lb.	35	40	GUARANA.	200	2 25	HONEY, lb.	13	15
Juniper, lb.	7	10	Powdered, lb.	2 25	2 50	HOPS, fresh, lb.	20	25
Ground, lb.	12	14	GUM ALOES, Cape, lb.	18	20	INDIGO, Madras, lb.	75	80
Prickly ash, lb.	40	45	Barbadoes, lb.	30	50	INSECT POWDER, lb.	25	28
BUIS, Balm of Gilead, lb.	55	60	Socotrino, lb.	65	70	ISINGLASS, Brazil, lb.	2 00	2 10
Cassia, lb.	25	30	Asafoetida, lb.	40	45	Russian, true, lb.	0 00	0 50
BUTTER, Cacao, lb.	75	80	Arabic, 1st, lb.	65	70	LEAF, Aconite, lb.	25	30
CAMPHOR, lb.	80	85	Powdered, lb.	75	85	Bay, lb.	18	20
CANTHARIDES, Russian, lb.	1 40	1 50	Sifted sorts, lb.	40	45	Belladonna, lb.	25	30
Powdered, lb.	1 50	1 60	Sorts, lb.	25	30	Buchu, long, lb.	50	55
CAPSICUM, lb.	25	30	Benzoin, lb.	50	1 00	Short, lb.	20	22
			Catechu, Black, lb.	9	20	Coca, lb.	35	40
			Gamboge, powdered, lb.	1 20	1 25	Digitalis, lb.	15	20
			Guaiac, lb.	50	1 00	Eucalyptus, lb.	18	20
			Powdered, lb.	90	95	Hyoscyamus.	20	25
			Kino, true, lb.	2 00	2 25	Matico, lb.	70	75

Senna, Alexandria, lb.	\$ 25	\$ 30	Queen of the Meadow, lb.	\$ 18	\$ 20	Valerianate, oz.	\$ 55	\$ 60
Tinnevely, lb.	15	25	Rhatany, lb.	20	30	AMYL Nitrite, oz.	16	18
Stramonium, lb.	20	25	Rhubarb, lb.	75	2 50	ANTINERVIN, oz.	85	00
Uva Ursi, lb.	15	18	Sarsaparilla, Hond, lb.	40	45	ANTIARMINA.	1 25	1 30
LEECHES, Swedish, doz.	1 00	1 10	Cut, lb.	50	55	ANTIPIRYN, oz.	1 10	1 20
LICORICE, Solazzi.	45	50	Senega, lb.	55	65	ARISTOL, oz.	1 85	2 00
Pignatelli.	35	40	Squill, lb.	13	15	ARSENIC, Donovan's sol., lb.	25	30
Grasso.	30	35	Stillingia, lb.	22	25	Fowler's sol., lb.	10	13
V & S—Sticks, 6 to 1 lb., per lb.	27	30	Powdered, lb.	25	27	Iodide, oz.	50	55
" Purity, 100 sticks in box	75	75	Unicorn, lb.	38	40	White, lb.	6	7
" Purity, 200 sticks in box	1 50	1 50	Valerian, English, lb. true.	20	25	ATROPINE, Sulp. in $\frac{1}{8}$ ozs. 80c.,		
" Acme Pellets, 5 lb. tins	2 00	2 00	Virginia, Snake, lb.	40	45	oz.	6 00	6 25
" Lozenges, 5 lb. tins.	2 00	2 00	Yellow Dock, lb.	15	18	BISMUTH, Ammonia-citrate, oz.	35	40
" Tar, Licorice, and Tolu,			RUM, Bay, gal.	2 50	2 75	Iodide, oz.	50	55
5 lb. tins.	2 00	2 00	Essence, lb.	3 00	3 25	Salicylate, oz.	20	25
LUPULIN, oz.	30	35	SACCHARIN, oz.	1 25	1 50	Subcarbonate, lb.	1 75	2 00
LYCOPodium, lb.	70	80	SEED, Anise, Italian, sifted, lb.	13	15	Subnitrate, lb.	1 40	1 60
MACE, lb.	1 20	1 25	Star, lb.	35	40	BORAX, lb.	7	8
MANNA, lb.	1 60	1 75	Burdock, lb.	30	35	Powdered, lb.	8	9
Moss, Iceland, lb.	9	10	Canary, bag or less, lb.	5	6	BROMINE, oz.	8	13
Irish, lb.	9	10	Caraway, lb.	10	13	CADMIUM, Bromide, oz.	20	25
MUSK, Tonquin, oz.	46 00	50 00	Cardamom, lb.	1 25	1 50	Iodide, oz.	45	50
NUTGALLS, lb.	21	25	Celery.	25	30	CAFFEINE, oz.	60	65
Powdered, lb.	25	30	Colchicum.	50	60	Citrate, oz.	60	65
NUTMEGS, lb.	1 00	1 10	Coriander, lb.	10	12	CALCIUM, Hypophosphite, lb.	1 50	1 60
NUX VOMICA, lb.	10	12	Cumin, lb.	15	20	Iodide, oz.	95	1 00
Powdered, lb.	25	27	Fennel, lb.	15	17	Phosphate, precip., lb.	35	38
OAKUM, lb.	12	15	Fennugreek, powdered, lb.	7	9	Sulphide, oz.	5	6
OINTMENT, Mercr., lb. $\frac{1}{2}$ and $\frac{1}{2}$	70	75	Flax, cleaned, lb.	3 $\frac{1}{2}$	4	CERIUM, Oxalate, oz.	10	12
Citrine, lb.	45	50	Ground, lb.	4	5	CHINOIDINE, oz.	15	18
PARALDEHYDE, oz.	20	22	Hemp, lb.	5	6	CHLORAL, Hydrate, lb.	1 25	1 30
PEPPER, black, lb.	12	13	Mustard, white, lb.	11	12	Croton, oz.	75	80
Powdered, lb.	15	16	Powdered, lb.	15	20	CHLOROFORM, lb.	60	1 00
PITCH, black, lb.	3	4	Pumpkin.	25	30	CINCHONINE, sulphate, oz.	25	30
Bergundy, true, lb.	10	12	Quince, lb.	65	70	CINCHONIDINE, Sulph., oz.	15	20
PLASTER, Calcined, bbl. cash.	2 25	3 25	Kape, lb.	8	9	COCAINE, Mur., oz.	6 00	7 00
Adhesive, yd.	12	13	Strophanthus, oz.	50	55	CODEIA, $\frac{1}{2}$ oz.	70	75
Belladonna, lb.	65	70	Worm, lb.	22	25	COLLODION, lb.	65	70
Galbanum Comp., lb.	80	85	SEIDLITZ MIXTURE, lb.	25	30	COPPER, Sulph., (Blue Vitriol) lb.	6	7
Lead, lb.	25	30	SOAP, Castile, Mottled, pure, lb.	10	12	Iodide, oz.	65	70
POPPY HEADS, per 100.	1 00	1 10	White, Conti's, lb.	15	16	COPPERAS, lb.	1	3
ROSIN, Common, lb.	2 $\frac{1}{2}$	3	Powdered, lb.	25	35	DIURETIC, lb.	1 60	1 65
White, lb.	3 $\frac{1}{2}$	4	Green (Sapo Viridis), lb.	15	25	ETHER, Acetic, lb.	75	80
RESORCIN, white, oz.	25	30	SPERMACEIL, lb.	65	70	Sulphuric, lb.	40	50
ROCHELLE SALT, lb.	28	30	TURPENTINE, Chian, oz.	75	80	EXALGINE, oz.	1 00	1 10
ROOF, Aconite, lb.	22	25	Venice, lb.	10	12	HYOSCYAMINE, Sulp., crystals, gr.	25	30
Althea, cut, lb.	30	35	WAX, White, lb.	50	75	IODINE, lb.	4 75	5 50
Belladonna, lb.	25	30	Yellow.	40	45	IODOFORM, lb.	6 00	7 00
Blood, lb.	15	16	WOOD, Guaiac, rasped.	5	6	IODOL, oz.	1 40	1 50
Bitter, lb.	27	30	Quassia chips, lb.	10	12	IRON, by Hydrogen.	80	85
Blackberry, lb.	15	18	Red Saunders, ground, lb.	5	6	Carbonate, Precip., lb.	15	16
Burdock, crushed, lb.	18	20	Santal, ground, lb.	5	6	Sacch., lb.	30	35
Calamus, sliced, white, lb.	20	25				Chloride, lb.	45	55
Canada Snake, lb.	30	35	CHEMICALS.			Sol., lb.	13	16
Cobosh, black, lb.	15	20	ACID, Acetic, lb.	12	13	Citrate, U.S.P., lb.	90	1 00
Colchicum, lb.	40	45	Glacial, lb.	45	50	And Ammon., lb.	70	75
Columbo, lb.	20	22	Benzoic, English, oz.	20	25	And Quinine, lb.	1 50	3 00
Powdered, lb.	25	30	German, oz.	10	12	Quin. and Stry., oz.	18	30
Coltsfoot, lb.	38	40	Boracic, lb.	13	14	And Strychnine, oz.	13	15
Comfrey, crushed, lb.	20	25	Carbolic Crystals, lb.	28	30	Dialyzed, Solution, lb.	50	55
Curcuma, powdered, lb.	13	14	Calvert's No. 1, lb.	2 10	2 15	Ferrocyanide, lb.	55	60
Dandelion, lb.	15	18	No. 2, lb.	1 35	1 40	Hypophosphites, oz.	25	30
Elecampene, lb.	15	20	Citric, lb.	45	50	Iodide, oz.	40	45
Galangal, lb.	15	18	Gallic, oz.	10	12	Syrup, lb.	40	45
Gelsemium, lb.	22	25	Hydrobromic, diluted, lb.	30	35	Lactate, oz.	5	6
Gentian or Genitan, lb.	9	10	Hydrocyanic, diluted, oz. bottles			Pernitrate, solution, lb.	15	16
Ground, lb.	10	12	doz.	1 50	1 60	Phosphate scales, lb.	1 25	1 30
Powdered, lb.	13	15	Lactic, concentrated, oz.	22	25	Sulphate, pure, lb.	7	9
Ginger, African, lb.	18	20	Muriatic, lb.	3	5	Exsiccated, lb.	8	10
Po., lb.	20	22	Chem. pure, lb.	18	20	And Potass. Tartrate, lb.	80	85
Jamaica, blchd., lb.	27	30	Nitric, lb.	10 $\frac{1}{2}$	13	And Ammon Tartrate, lb.	80	85
Po., lb.	30	35	Chem. pure, lb.	25	30	LEAD, Acetate, white, lb.	13	15
Ginseng, lb.	4 50	4 75	Oleic, purified, lb.	75	80	Carbonate, lb.	7	8
Golden Seal, lb.	75	80	Oxalic, lb.	12	13	Iodide, oz.	35	40
Gold Thread, lb.	90	95	Phosphoric, glacial, lb.	1 00	1 10	Red, lb.	7	9
Hellebore, white, powd., lb.	12	15	Dilute, lb.	13	17	LIME, Chlorinated, bulk, lb.	4	5
Indian Hemp.	18	20	Pyrogallie, oz.	30	35	In packages, lb.	6	7
Ipecac, lb.	1 75	2 00	Salicylic, white, lb.	1 00	1 10	LITHIUM, Bromide, oz.	30	35
Powdered, lb.	2 00	2 25	Sulphuric, carboy, lb.	2 $\frac{1}{2}$	2 $\frac{3}{4}$	Carbonate, oz.	30	35
Jalap, lb.	55	60	Bottles, lb.	5	6	Citrate, oz.	25	30
Powdered, lb.	60	65	Chem. pure, lb.	18	20	Iodide, oz.	50	55
Kava Kava, lb.	40	90	Tannic, lb.	80	85	Salic ate, oz.	35	40
Licorice, lb.	12	15	Tartaric, powdered, lb.	35	38	MAGNESIUM, Calc., lb.	55	60
Powdered, lb.	13	15	ACETANIL, lb.	75	80	Carbonate, lb.	18	20
Mandrake, lb.	13	18	ACONITINE, grain.	4	5	Citrate, gran., lb.	35	40
Masterwort, lb.	16	40	ALUM, cryst., lb.	1 $\frac{1}{2}$	3	Sulph. (Epsom salt), lb.	1 $\frac{1}{2}$	3
Orris, Florentine, lb.	30	35	Powdered, lb.	3	4	MANGANESE, Black Oxide, lb.	5	7
Powdered, lb.	40	45	AMMONIA, Liquor, lb., .880.	10	12	MENTHOL, oz.	55	66
Pareira Brava, true, lb.	40	45	AMMONIUM, Bromide, lb.	80	85	MERCURY, lb.	75	80
Pink, lb.	40	45	Carbonate, lb.	14	15	Ammon (White Precip.)	1 25	1 30
Parsley, lb.	30	35	Iodide, oz.	35	40	Chloride, Corrosive, lb.	1 00	1 10
Pleurisy, lb.	20	25	Nitrate, crystals, lb.	40	45	Calomel, lb.	1 00	1 10
Poke, lb.	15	18	Muriate, lb.	12	16	With Chalk, lb.	60	65

fessor of Pharmacy and Pharmaceutical Chemistry in the New York College of Pharmacy, Fellow of the Chemical Society of London and Berlin. 2nd edition, revised and enlarged. P. Blakiston, Son & Co., Philadelphia. Price \$3.50.

From such a source we are led to expect a work which will be an indisputable authority on the subjects on which it treats. The first edition, published somewhat over a year ago, fully met these expectations in giving us a work worthy of its author and a valuable addition to pharmaceutical literature. The present edition has been improved and a chapter on the "Analysis of Urine" and another on the "Applications of the Microscope in Pharmacy" added, making it a still more valuable work for the pharmacist and physician. To the pharmaceutical student also it must prove of great value, and should be his constant companion in his studio.

"THE ART OF COMPOUNDING": a textbook for students and a reference book for pharmacists at the prescription counter. By Wilbur L. Scoville, Ph.G., Professor of Allied Pharmacy and Director of the Pharmaceutical Laboratory in the Massachusetts College of Pharmacy. P. Blakiston, Son & Co., Philadelphia. \$2.50.

This work is one that must prove of great value to the practical pharmacist. Throughout its 264 pages there is a vast amount of information which, in the form presented, is worth many times the price of the work. Without reviewing the book extensively, we look at the chapter on Prescriptions, which is a very exhaustive one. It treats of the prescription from all standpoints, gives a complete list of Latin terms used, speaks of doses, ethics, and general suggestions for the prescription counter. The chapter on Mixtures contains seventy-eight prescription examples. Pills, powders, lozenges, tablets, etc., are all treated in the same way, and the numerous formulæ given and the explanations with them are one of the leading features. The chapter on Incompatibility is an excellent guide, especially to the student and young pharmacist. The author is well qualified for the work he has undertaken and in which he has succeeded so well.

Magazines.

Canadian Magazine. The number for January is replete with good things. Amongst the leading articles are "The Alaska Boundary" (with map), by R. E. Gosnell; a biographical sketch of Sir Mackenzie Bowell, by J. Lambert Payne, and one of the Liberal leader, Hon. Wilfrid Laurier, by James A. Barron; "Fall of Prices, and the Effect on Canada," by J. B. Peat; "Winchester Cathedral," by T. E. Champion; together with other articles of merit. The number is also liberally illustrated. Subscription price, \$2.50 per annum.

Massey's Magazine. This new monthly has made its appearance, and, if the January number is any criterion of those to follow, we predict for it a success. The general appearance, barring the cover, is good: the typography and paper are first class, and the illustrations fully up to the standard of any of the magazines. Amongst the contributors to this number are Prof. Wm. Clark, D.C.L., G. A. Reid, R.C.A., E. Pauline Johnson, T. M. Macintyre, Ph.D., Charles Gordon Rogers, Ezra Hurlburt Stafford, C. G. D. Roberts, and others. It is published by the Massey Press, Toronto, at the popular price of one dollar per annum.

No one ever thought of introducing so expensive a feature as lithographic color work in the days when the leading magazines sold for \$4 a year and 35 cents a copy. But times change, and the magazines change with them. It has remained for *The Cosmopolitan*, sold at one dollar a year, to put in an extensive lithographic plant, capable of printing 320,000 pages per day (one color). The January issue presents as a frontispiece a water color drawing by Eric Pape, illustrating the last story by Robert Louis Stevenson, which has probably never been excelled even in the pages of the finest dollar French periodicals. The cover of *The Cosmopolitan* is also changed: a drawing of page length by the famous Paris artist, Rossi, in lithographic colors on white paper, takes the place of the manilla back with its red stripe. Hereafter the cover is to be a fresh surprise each month.

That bright and entertaining magazine for young people, *Frank Leslie's Pleasant Hours for Boys and Girls*, has some particularly good things in its January number. There is a beautifully illustrated article on "The United States Naval Cadet," by Joseph Coblentz Groff, which tells how appointments in Annapolis are secured, and describes the daily life of the cadets; Charles Frederick Holder contributes a splendid short story about some boys who caught sharks for a living; there is an article telling how a boy may build a low-priced iceboat, and learn to sail it, by Wilf. P. Pond; an illustrated New Year's story in verse, by Ethel Hatton; a paper on "Snow Igloos and Images, and How to Make Them," by J. Carter Beard; the continuation of the two serials by Edward S. Ellis and Jeanette H. Walworth; several other short stories, some tricks and puzzles, and the editor's interesting chat on the new books for boys and girls.

The January number of *The Delineator* is called the winter holiday number. The space devoted to Woman's Work and Advancement includes a thoughtful conversation between Edith M. Thomas and Dr. S. R. Elliott on "Women in Business"; an interesting paper by Miss Margaret McNaughton, discussing "Architecture as a Profession for Women"; a graphic de-

scription by Lucia M. Robbins of "Woman's Work at the Atlanta Exposition"; Harriet Keith Forbes' directions for "Burnt Decorations upon Cardboard," and the continuation of Sara Miller Kirby's kindergarten articles. The first of a brief series of papers on the care of the teeth, by a well-known New York dentist, will be found exceptionally valuable. Mrs. A. B. Longstreet describes the carving of meats, and in Seasonable Cookery impromptu luncheon menus receive attention. Subscription price of *The Delineator* \$1 per year, or 15c. per single copy. Address, The Delineator Publishing Company of Toronto, Limited, 33 Richmond street west, Toronto, Ont.

The first magazine for the new year is the brilliant January number of *Frank Leslie's Popular Monthly*, illustrated with more than one hundred up-to-date pictures by the best illustrators of America and Europe. The leading article, upon "Great Ship Canals," by Arthur Vaughan Abbott, C.E., describes the world's principal artificial waterways of the present day, including the new Baltic, the Manchester, and the Corinth canals of Europe, and the Welland, the Sault Ste. Marie, and the Harlem, in America. Albert L. Rawson, the well-known artist and Orientalist, contributes, under the title of "A Bygone Bohemia," a most interesting chapter of reminiscences of the famous coterie of wits, writers, poets, and players who brought celebrity to Pfaff's resort, in New York city, a generation back. Mr. Rawson's article is enriched with some rare and hitherto unpublished portraits, including those of Henry Clapp, George Arnold, Walt Whitman, Richard Realf, Artemus Ward, Mark Twain, Josh Billings, and Petroleum V. Nasby.

Preliminary Examination of Pharmacy Students.

The preliminary Board of Examiners of the Pharmaceutical Association of the Province of Quebec held their quarterly examinations in Montreal and Quebec on Thursday, January 2nd, 1896, seventeen candidates presenting themselves in Montreal and four in Quebec. Of these the following passed upon all subjects, namely, Henri Masecotte, John J. Weinfeld, J. A. Choquette, and Sterling Whiteside. Two of the candidates failed on history, namely, J. Bte. Bisailon and Louis Mayer, and will be required to present themselves again for that subject only.

The case of one of the candidates has been referred to the council for consideration.

The examiners were Prof. A. Leblond de Brumath and Prof. Isaac Gammell.

The next examination will be held on the 2nd day of April. Candidates must file their applications to the secretary, Mr. E. Muir, at least ten days prior to that date.

Iodide, Proto, oz.	\$ 35	\$ 40
Bin., oz.	25	30
Oxide, Red, lb.	1 15	1 20
Pill (Blue Mass), lb.	70	75
MILK SUGAR, powdered, lb.	30	35
MORPHINE, Acetate, oz.	1 55	1 00
Muriate, oz.	1 55	1 00
Sulphate, oz.	1 55	1 60
PEPSIN, Saccharated, oz.	35	40
PHENACETINE, oz.	35	38
PILOCARPINE, Muriate, grain.	35	38
PIPERIN, oz.	1 00	1 10
PHOSPHORUS, lb.	90	1 10
POTASSA, Caustic, white, lb.	60	65
POASSIUM, Acetate, lb.	35	40
Bicarbonate, lb.	15	17
Bichromate, lb.	14	15
Bisat (Cream Tart.), lb.	20	30
Bromide, lb.	95	70
Carbonate, lb.	12	13
Chlorate, Eng., lb.	18	20
Powdered, lb.	20	22
Citrate, lb.	70	75
Cyanide, lb.	40	50
Hypophosphites, oz.	10	12
Iodide, lb.	4 00	4 10
Nitrate, gran, lb.	8	10
Pernanganate, lb.	40	45
Prussiate, Red, lb.	50	55
Yellow, lb.	32	35
And Sod Tartrate, lb.	25	30
Sulphuret, lb.	25	30
PROPYLAMINE, oz.	35	40
QUININE, Sulph, bulk	32	35
Ozs., oz.	30	40
QUINIDINE, Sulphate, ozs., oz.	10	20
SALICIN, lb.	75	4 00
SANTONIN, oz.	20	22
SILVER, Nitrate, cryst, oz.	90	1 00
Fused, oz.	1 00	1 10
SODIUM, Acetate, lb.	30	35
Bicarbonate, kgs, lb.	2 75	3 00
Bromide, lb.	95	70
Carbonate, lb.	3	6
Hypophosphite, oz.	10	12
Hyposulphite, lb.	3	6

Iodide, oz.	\$ 40	\$ 43
Salicylate, lb.	1 75	1 80
Sulphate, lb.	2	5
Sulphite, lb.	8	10
SOMNAL, oz.	85	00
SPIRIT NITRE, lb.	35	65
STRONTIUM, Nitrate, lb.	18	20
STRYCHNINE, crystals, oz.	80	85
SULFONAL, oz.	40	42
SULPHUR, Flowers of, lb.	2 1/2	4
Pure precipitated, lb.	13	20
TARTAR EMETIC, lb.	50	55
THYMOL (Thymic acid), oz.	55	60
VERATRINE, oz.	2 00	2 10
ZINC, Acetate, lb.	70	75
Carbonate, lb.	25	30
Chloride, granular, oz.	13	15
Iodide, oz.	00	65
Oxide, lb.	13	60
Sulphate, lb.	0	11
Valerianate, oz.	25	30

ESSENTIAL OILS.

Oil, Almond, bitter, oz.	75	80
Sweet, lb.	50	60
Amber, crude, lb.	40	45
Rec't, lb.	00	65
Anise, lb.	3 00	3 25
Bay, oz.	50	60
Bergamot, lb.	3 75	4 00
Cade, lb.	90	1 00
Cajuput, lb.	1 60	1 70
Capsicum, oz.	00	65
Caraway, lb.	2 75	3 00
Cassia, lb.	1 75	1 80
Cedar, lb.	55	85
Cinnamon, Ceylon, oz.	2 75	3 00
Citronelle, lb.	80	85
Clove, lb.	1 10	1 20
Copaiba, lb.	1 75	2 00
Croton, lb.	1 50	1 75
Cubeb, lb.	2 50	3 00
Cumin, lb.	5 50	6 00
Erigeron, oz.	20	25
Eucalyptus, lb.	1 50	1 75
Fenne, lb.	1 60	1 75

Geranium, oz.	\$1 75	\$1 80
Rose, lb.	3 20	3 50
Juniper berries (English), lb.	4 50	5 00
Wood, lb.	70	75
Lavender, Chiris. Fleur, lb.	3 00	3 50
Garden, lb.	1 50	1 75
Lemon, lb.	1 75	1 80
Leongrass, lb.	1 50	1 60
Mustard, Essential, oz.	60	65
Neroli, oz.	4 25	4 50
Orange, lb.	2 75	3 00
Sweet, lb.	2 75	3 00
Origanum, lb.	65	70
Patchouli, oz.	80	85
Pennyroyal, lb.	2 50	2 75
Peppermint, lb.	3 60	3 75
Pimento, lb.	2 00	2 75
Rhodium, oz.	80	85
Rose, oz.	7 50	11 00
Rosemary, lb.	70	75
Rue, oz.	25	30
Sandalwood, lb.	5 50	7 50
Sassafras, lb.	75	80
Savin, lb.	1 60	1 75
Spearmint, lb.	3 75	4 00
Spruce, lb.	65	70
Tansy, lb.	4 25	4 50
Thyme, white, lb.	1 80	1 90
Wintergreen, lb.	2 75	3 00
Wormseed, lb.	3 50	3 75
Wormwood, lb.	4 25	4 50

FIXED OILS.

CASTOR, lb.	8	10
COD LIVER, N.F., gal.	1 75	2 00
Norwegian, gal.	2 75	3 00
COTTONSEED, gal.	1 10	1 20
LARD, gal.	90	1 00
LINSEED, boiled, gal.	62	65
Kaw, gal.	60	62
NEATSFOOT, gal.	1 20	1 30
OLIVE, gal.	1 20	1 25
Salad, gal.	2 50	2 60
PALM, lb.	12	13
SPERM, gal.	1 35	1 40
TURPENTINE, gal.	60	65

Drug Reports.

Canada.

Business during the holiday season is reported as having been very good in staple lines of sundries. During the last months of 1895 many lines of drugs started upward in price, some making high figures, notably cream of tartar, tartaric acid, sal rochelle, glycerin, camphor; and advanced prices are still maintained. With the advent of 1896 others are jumping up. Phenacetine (owing to the advance in raw material, so it is reported) has advanced to 35c. and 38c. per ounce. Quinine, which for some time has been expected to advance, has at least verified the prediction: Howard's is quoted for the present at 42c. in ounces, 40c. in 4 ounces; German 35c. to 37c. Opium is higher also, and worth in the vicinity of \$4. Pot. iodide at present is an uncertain quantity. A new manufacturer has appeared on the scene, and it is intimated the older manufacturers will lower the price to crowd him out. Oil aniseed is higher. Oil lemon is firm. Cod liver oils maintain advanced figures, and are very firm, with signs of higher prices. Castor oil is easier. Balsam Peru much higher. French castille soap is lower, owing to new duty. This does not affect contis white or mottled, as they come from Italy.

Turpentine: On account of very low stocks, higher prices are almost certain. Williams' barbers' bar is on the rebate at \$2.50 per box.

Spermaceti is higher. Gum shellac easier.

England.

London, Dec. 28th, 1895.

At the close of the year the markets are always dull. There has been plenty of business right up to date, and prices have generally been on the up-grade. Iodine is attracting a good deal of attention, and no one knows when the bolt from the blue may be expected. It is certain that the decided reduction in price cannot long be delayed. Chrysophanic acid is much dearer. Balsams of copaiba, Peru and tolu, have increased in value. Carbolic acid has advanced, and santonine, quinine, and opium alkaloids have moved upward. Cream of tartar is sagging. Star anise oil and cassia oil are much dearer, but the market is not very firm.

Essential Oils.

The recent marked increase of price for the popular perfume citronella has been the subject of much comment among the trade, and large consumers especially are anxiously awaiting news regarding the outlook for the coming year. The ad-

vance has been caused mainly by short supply and by an increased demand for the oil among soap-makers. Indications are that 50 cents per pound will be the lowest average price during 1896. As a result other cheaper perfumes are awakening additional interest about this time. Artificial sassafras oil, the price of which is much below that of citronella, and the odor of which is healthful, pleasant, and a favorite with the people, has attracted attention in this connection, and the consumers may expect a change in the odor of many brands they have been buying.

Oil cassia has also increased in price from 75 cents to \$2.50 per pound, caused by the fact that the China market is practically bare of anything but adulterated and low grade oil, and the supply very limited. *American Soap Journal, Jan. 1st.*

Cedrat oil, strictly pure, cannot be had in commerce, but it is quoted as being worth \$65 per pound. Cedrat oil as found in the stores is nothing but a modified lemon oil. Cedrat oil has been shown to contain citral.

Ceylon cinnamon oil invariably contains at least thirty per cent. of the less valuable oil of the leaf, but, in the opinion of Schimmel Brothers, the latter is not added fraudulently, the bark and leaves being habitually distilled together.

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VIII.

TORONTO, FEBRUARY, 1896.

No. 2

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

Subscription \$1 per year in advance.

Advertising rates on application.

The CANADIAN DRUGGIST is issued on the 15th of each month, and all matter for insertion should reach us by the 5th of the month.

New advertisements or changes to be addressed

Canadian Druggist,

111, RICHMOND ST. WEST,

TORONTO, ONT.

EUROPEAN AGENCIES:

ENGLAND: Aldermay House, 60 Watling Street, London, E. C.

FRANCE: 5 Rue de la Bourse, Paris.

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Hard Work Well Done.

The Executive Committee of the Ontario Society of Retail Druggists has completed its labors in bringing to a consummation an agreement between the retailers, on the one hand, and the wholesalers, jobbers, and manufacturers, on the other, and now all that remains is for each to put into effect on the 17th the promise they have made. The point has now been reached, which is to test the faithfulness of the respective parties to the agreement. The test will be made with no little trepidation as to the outcome. All have not signed from the ranks of the retailers and manufacturers, but a sufficient number have to enable a fair trial to be made. Of the 550 retailers who have signed, only one has asked to have his name withdrawn. There is a distinctly manifest desire on the part of all who have signed to give the agreement a fair trial, and we trust no one will hold back when the day comes. The essence of the whole matter simply resolves itself into this: Will each risk a temporary loss in the hope of securing a permanent gain, or will the present unprofitable basis for conducting trade be continued without any hope of future betterment? The president of the Retailers' Society, Mr. Gibbard, has worked most indefatigably in promoting an agreement. He has visited, to secure organization, Ottawa, Montreal, Quebec, Morrisburg, Iroquois, Prescott, Brockville, Kingston, Whitby, Oshawa, Bowmanville, Pickering, Berlin, London, Walkerville, and Detroit, while Mr. Pepper visited the principal towns in the Niagara district. Early in January Mr. Gibbard visited Montreal, and held a conference with the members of the Montreal society in the board room of the college. The meeting took up the matter, appointed a committee to investigate, and, as an evidence of their desire to co-operate with their Ontario confrères, organized a Quebec society on the fifth of the present month, with Mr. Contant

as president and Mr. Tremble as secretary.

The influence of combined action by druggists in the Provinces of Ontario and Quebec has extended to British Columbia, as the retail druggists, particularly of the city of Vancouver, have taken action on similar lines recently to weed out cutting.

The issuance of the agreement recently, calling upon all parties to act at once and together on the 17th, has drawn the attention of these other provinces to the stability of the druggists of Ontario, and, as they will naturally be very much influenced by our success or failure, we are, in a measure, placed upon our mettle. Ontario's opportunity to make a record for itself is now here. Failure is bound to discredit us and to cheapen our position. Druggists in cities such as Toronto, Hamilton, Brantford, Stratford, etc., are now over their scare. They are willing to be broken one way or another, in so far as dread goes, but their judgment to a man, we believe, is in favor of making a determined effort to have withdrawn from departmental stores a section of their trade which is used merely for advertising purposes. This can be done only in one way, and every reader knows what that is by this time; if not, think well over what these agreements mean to the houses which control the commerce of the drug trade throughout Canada, and then pledge yourself to stay with them, as far as your minor interest is concerned, as long as they are willing in return to shield you from a condition of things which has even now sapped the vitals of the weaker members of the trade, and which would ere long, if permitted to continue, utterly dishearten those who, through years of unremitting care and attention, built up lucrative businesses. The circular just issued says, "The following is our Friendly List"; then follows names of houses every one of which have as much right to publish your name as their friend. If you act with them in this matter, you are; if

not, you are not. The 17th decides. Don't forget the day; be sure to act.

Another Free Course in Optics to Subscribers of the "Canadian Druggist."

In our issue of November we offered a free course in optics to any druggist, provided no other druggist in his town handled optical goods. The interest taken in this study, and the appreciation of the offer made, was evidenced by the number of applications received. As all could not be accommodated at that time, we have decided to make a similar offer for a class commencing March 9th. The only stipulations are that the applicant must be a druggist in business on his own account; there must be no other graduate of the Optical Institute of Canada in the town; and the applicant must be a paid subscriber to the CANADIAN DRUGGIST.

No charge whatever is made for the course of instruction, the only expense being the railway fare and board while in the city. As the number of CANADIAN DRUGGIST students in this class is limited to four, application for admission should be made at once.

The growing interest taken in the study of optics, and the fact that it is a very desirable and profitable side-line for druggists to handle, is our object in giving these free courses.

Stand by the President.

Those who know what kind of a man Mr. Gibbard, president of the Society of Druggists, is know well that, as far as it lies in his power to promote its welfare and usefulness to the trade, he will exert it. Comparatively few are aware of the enormous amount of work he has already performed, or the innumerable vexatious difficulties he has had to contend with. The latter are only limited by the number of perplexing complications arising out of an attempt to harmonize so many trade interests. Mr. Gibbard is to be congratulated on preventing any further serious outbreaks, and upon retaining the influence and support of the wholesale trade.

Whatever may be said of the intentions of patent medicine manufacturers and dealers, there is not the slightest doubt but that the members of the wholesale drug trade are unitedly desirous of standing by the retailers, notwithstanding any assertions to the contrary. They are no

more desirous of provoking a cause of complaint on the part of the retail druggists than the latter would be to give offence to his best customer. Even if they would like to secure some of the trade which large outside houses would be willing to give them, they dare not do so, as the lessons already taught some of the specialty houses, whose avarice overcame their discretion, has shown them that while in some respects the retail trade is not thoroughly banded, it is sufficiently welded together to assert its power in any special direction in that manner.

Fear of consequences may not be in theory the best band for binding with, but in practice it works much like the twenty-dollar fine for carrying firearms.

There is but little doubt that if the retail drug trade will faithfully fall into line with Mr. Gibbard to protect the interests of its members much can be accomplished. If every druggist will but do half his duty for a period of six months, the results will induce the performance of the other half and extricate the trade from its present uncertain and unsatisfactory condition.

A Help for Advertisers.

There is such an uncommon amount of common sense in the "Practical Hints on Advertising," now being published regularly in this paper, that we ask every subscriber to read and think about them. Advertising is the most important part of every business under the sun. There is no question about that. And still it is the most generally neglected. No man can do business without letting people know in some way or other that he wants their trade. He can stand on top of his store and swing his arms and yell—that is advertising—but he'd better go about it in a surer way.

There is a best way to do everything. There is a best way to advertise. No one plan will fit all cases. The business ought to fit the advertising, and the advertising fit the business.

The "Practical Hints on Advertising" in this paper are from the pen of Mr. Charles Austin Bates, of New York, a man who has had active, actual experience for many years in all the different kinds of advertising. Among advertisers generally, big and little, he is perhaps as well known as any other man in the United States.

What Mr. Bates has to say is marked by plainness and directness. He tells what he knows rather than what he thinks. He strikes right out from the shoulder, and whenever he sees a sham he hits it. His talks are thoroughly practical. It is pretty safe to say that no man who faithfully follows Mr. Bates' advice will fail to get better results from his advertising. We are going to publish these articles throughout the year.

Pharmacy Students' Association.

The students of the Ontario College of Pharmacy have settled down to work after their Christmas holidays, and have the largest class which has ever been in attendance. On January 9th an association was formed and candidates nominated for the various offices. The elections took place January 13th, and were the cause of much excitement and good-natured competition. The results are as follows: President, A. E. Cox; secretary, Robert McLeod; treasurer, J. H. Sutherland.

Wholesalers' Meeting.

The regular meeting of the Wholesale Drug and Proprietary Medicine Dealers' Association was held at the Royal Hotel, Hamilton, on Tuesday, January 14th. During the session a deputation from the Hamilton Retail Drug Association, consisting of A. Vincent, president; Messrs. R. Brierley, W. T. Arnold, W. A. Howell, John A. Barr, and G. McCullough, took the opportunity of paying a friendly visit, with the object of showing the friendliness and sympathy of their association toward the jobbers, in their endeavor to better the interests of pharmacy generally.

The Wholesale Association were most hospitably entertained by Messrs. J. Winer & Co. and Archdale, Wilson & Co.

The American Pharmaceutical Association Meeting.

A meeting of the Montreal druggists was held January 8th, to make arrangements for the meeting of the American Pharmaceutical Association, to be held in that city in August. Mr. J. H. Chapman presided. The meeting was addressed by Mr. J. E. Morrison, one of the delegates to the meeting held last year at Denver, Colorado. It was resolved to form a general committee which would be subdivided into finance, reception, and amusement committees, the Pharmaceutical Society of the Province of Quebec, and the members of the Council of the Montreal College of Pharmacy; and the following will comprise the general committee: F. C. Simson, Halifax; R. Griffiths, Sherbrooke; J. E. Roy, Quebec; E. B. Shuttleworth, C. F. Heebner, J. Lowden, R. Gifford, J. H. Mackenzie,

Protonuclein...

Tablets. (100 3-grain Tablets in bottle) per doz. \$9.00
 " (1000 3-grain Tablets in bottle) each 6 75
 Powder. (1 oz. bottles) per doz. 5.00
 " (8 oz. in bottle) each 5.50

REED & CARNRICK,
 30 Wellington St. East, TORONTO.

Duncan, Flockhart & Co.'s

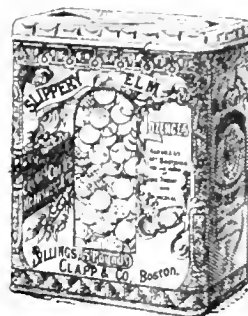
Blaud Pill Capsules

Are soft and flexible
 Never become hard

Never become oxidized
 Never vary in strength

These Capsules are put up in 1, 2, and 3-pill sizes, with or without Arsenic, and can be supplied in boxes of 25 or 100 (each). They are prepared by a unique and original process, which entirely overcomes the tendency to **hardening** which is so common in the **Blaud Pills**.

R. L. GIBSON,
 30 Wellington St. East,
TORONTO.



BILLINGS, CLAPP & CO'S
 (BOSTON.)

SLIPPERY ELM TABLETS

In 5 lb. Glass Front Display Tins

\$1.25

Also In Cartoons of 40 5-cent Boxes.
 SAME PRICE.

COBB'S Pine Tar Cough Drops

Stamped C.C.C.

In two strengths, Medium and Strong
 40 5-cent Packages for \$1.25



VOLLOR'S
 Refined IXL Spruce Gum
 150 One cent sticks,
 in tin foil.
 Banner Spruce Gum
 Gilt Edge Spruce Gum

Elmendorf's Tar Gum Souder's Chewing Gums

Manufactured by the Royal Remedy and Extract Co., Dayton, O. Full line
 Tolu Sugar Plums, Sweet Wheat, After Dinner, Celery, Peppin, etc.

Restuccia's Pure Cream Salad Olive Oil
 in one gallon tins.

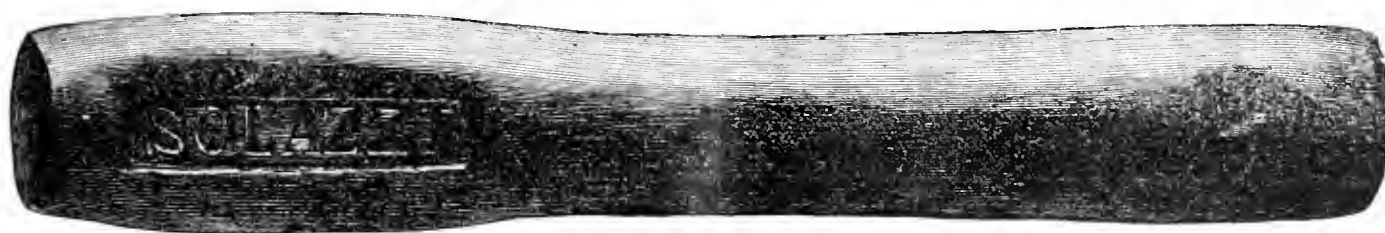
WRITE FOR PRICE-LIST.

CANADIAN SPECIALTY CO.
 38 Front Street East, Toronto, Ont.

"Solazzi"

THE CHEMISTS' BRAND

Liquorice Juice



The Testimony of "The Lancet"

The following is from "The Lancet" of March 30th, 1895:

"The above brand has long been known to be of standard purity. We found the specimen to be completely soluble in water, and entirely free from impurities of any kind. It is, therefore, well adapted for the pharmaceutical purpose for which it is so useful, while as a popular demulcent it is both safe and reliable."

Recommended also by "The British Medical Journal," "Health," "The Chemist and Druggist," "Food and Sanitation."

ASK FOR SHOWCARDS AND HANDBILLS.

Wampole's**BEEF, WINE, AND IRON.**

In Pint Bottles.....\$5 00 per doz.

Winchester (1/2 Imp. Gal.)..... 2 00 each.

Imp. Gallon, in 5 gal. lots, and over 3 50 per gal.

With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

1/4 Gross lots, and over.....\$60 00 per gross.
(Packed in One-Dozen Cases.)

We use a Pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

We invite comparison with other manufacturers, and will cheerfully furnish samples for that purpose.

Your early orders and enquiries solicited through Wholesale Jobbers or direct from us.

Henry K. Wampole & Co.,
MANUFACTURING PHARMACISTS,
Philadelphia, Pa.

Canadian Branch:

36 and 38 Lombard Street, TORONTO.

**DR. HAIR'S
ASTHMA CURE**

**Relief
Quick**

**Cure
Certain**

Dr. Hair's Asthma Cure is a remedy made according to scientific knowledge that will cure **Asthma**. Thousands are permanently cured annually by this cure. It is a radical, speedy, and sure cure for all forms of Asthma. It is for sale by all the leading wholesale druggists in the Dominion of Canada, to wit: Lyman Brothers & Co.; Evans & Sons Toronto, Ont.; Lyman Sons & Co., Montreal, Quebec Forsyth, Sutcliffe & Co., Halifax, Nova Scotia; J. Winer & Co., Hamilton, Ont.; and T. B. Barker & Sons, St. John, New Brunswick.

A supply of Dr. Hair's pamphlets, and other Asthma literature, also prices and terms, will be sent to any retail druggist on request.

All druggists should keep this remedy.

Your early orders and enquiries solicited through wholesale druggist, or direct from us.

None genuine without the trade-mark.

Manufactured only by Dr. D. W. Hair, Cincinnati, O., U.S.A. Address,

DR. W. B. HAIR

341 West Fourth St., Cincinnati, O.

The Harry Lewis DOG SOAP

Made from the
Original Recipe

TRADE



MARK.

Beautifully got up,
and a Good Seller

Whale Oil Soap

In 1lb. boxes, 1 doz. in Case;
In 20-lb. Pails and Barrels



For killing insects on
Rose Bushes, Plants, etc.

THE ALBERT TOILET SOAP CO.,
Makers and Sellers MONTREAL

CONFIDENCE in the merits of the goods you sell is an important element of success.

Johnston's Fluid Beef

can always be sold with the most absolute guarantee that it is the best Beef preparation.

We will back you up in this statement to the fullest extent.

The JOHNSTON FLUID BEEF CO., - MONTREAL.

**RUBBER
GOODS**

AT RIGHT PRICES

OUR LINE OF

ENEMAS, TUBING, FOUNTAINS,
ATOMIZERS, is very complete and
prices right. Buyers can effect great
saving by placing orders with us.

SURE-SELLING SPECIALTIES:

CARSON'S BITTERS

PECTORIA

SILVER CREAM

ALLAN'S COUGH CANDIES
1/4 gross Box at \$1 per Box.

SOAP BARK

In 5c. Packages, 1/4 gross Box, \$1
per Box.

Full lines of Sundries.

Mail orders promptly executed

ALLAN & CO.

132 BAY ST., TORONTO

Toronto; H. Watters, Ottawa; J. E. D'Avignon, Windsor; H. Veomans, Belleville; and Messrs. Morrison, Webb, Nelson, Anderson, Lecours, Giroux, jr., MacMillan, Decary, Morgan, and Carriere of Montreal. The druggists of Montreal are to be congratulated on the hearty way in which they are taking hold of the arrangements, and our fellow pharmacists from the United States may depend on receiving a royal reception.

O.C.P. Annual Dinner.

The annual dinner of the faculty and graduating class of the Ontario College of Pharmacy was held at the Walker House, in this city, on Friday evening, February 7th. The event was in every way a marked success; the menu was excellent; speeches full of patriotism and abounding in eloquence, songs that would do credit to any assemblage, and enthusiasm which lasted the entire evening. The only thing to mar the whole event was the absence of the honorary president, Prof. Charles F. Heebner, dean of the college, who, through illness, had been obliged a few days previously to leave for a sanitarium in New York state. Numerous kindly allusions were made during the evening by several of the speakers to the absence of the dean, and hopes expressed for his speedy recovery. The chair was occupied by A. E. Cox, president of the class, having on his left Dr. Graham Chambers, and on his right Mr. J. H. Mackenzie, president of the council. The other members of the council in attendance were Messrs. Watters, of Ottawa, and Daniel, of Toronto. Delegates were present from the School of Science, Toronto School of Medicine, Toronto University (arts), Trinity, and Royal College of Dental Surgeons, all of whom responded to the toast of the "Sister Institutions." Letters of regret were received from Hon. G. W. Ross, Minister of Education; E. Muir, secretary Montreal College of Pharmacy, and from Messrs. Newton H. Brown, W. A. Karn, J. E. D'Avignon, J. F. Roberts, J. McKee, J. H. Dickey, J. W. Spackman, A. B. Petrie, and Miss Johnston, class '95. Speeches were made by Messrs. Mackenzie, Daniel, Watters, Cochrane, Dr. Chambers, Dr. Fotheringham, and others; and songs by Messrs. Archie McFadyen, W. J. A. Carnahan, and W. S. McKay. The college cry for the occasion was:

"Ethane, M.thane, O.C.P.,
Ether, Meter, Pharmacy;
Monodelphous, Neuceli,
Olein, Stearine, Cetaceii."

Montreal Pharmacy Students' Dinner.

The annual dinner of the students and faculty of the Montreal College of Pharmacy was held at the Richelieu Hotel, Feb. 5th. The affair was an unqualified success both in point of attendance, enthusiasm, and the speeches delivered.

About one hundred persons were present, the chair being occupied by Mr. L. A. Genest, with Sir William Hingston on his left and Dr. Reed, president of the college, on the right. Among the other guests were Major Rogers, Mr. E. Muir, Dr. Watson, A. B. J. Moore, J. E. W. Lacours, and E. Morrison. The toast list was disposed of as follows: Quebec Pharmaceutical Association, proposed by Mr. P. G. Mount, and responded to by Mr. J. Contin; College of Pharmacy, M. Roy, responded to by Prof. Watson; Major Rogers, and Sir William Hingston; Guests, M. J. B. Biron, responded to by J. Ethier; The press, Mr. E. R. Desrosiers, responded to by the representatives present; The Ladies, Mr. Ed. Thivierge.

In his remarks, Sir William Hingston took occasion to refer to the practice of a number of physicians in Canada of prescribing patent medicines for their patients. It was a mistake, and greatly injured pharmacy. The highest standing of pharmacy was maintained in France, because physicians refused to accept things that they virtually knew nothing about, and what patent medicines were offered in the country had to pass a government test, which was very severe.

Speeches were also made by Dr. Reed, Mr. D. Watson, Mr. J. Contant, and representatives of sister societies and the press. Letters and telegrams of regret were read by the secretary, Mr. E. G. Mount, from President Williams, H. R. Gray, A. B. Evans, and Professors Bemrose and Pfister. Musical selections, vocal and instrumental, given by Messrs. Fisher and Saucier, and Major Rogers, added very much to the pleasure of the evening. Altogether, the reunion of '96 was voted a great success, and the college refrain, as follows, was given with great enthusiasm:

"Now, here's to our own M. C. P.
Long life to her professors;
And may exams. no terrors have,
We'll all get thro' in April."

Questions and Answers.

McL. asks for a formula for starch gloss:

- (1) Spermaceti 2 oz.
Hard paraffin..... 3 oz.

Melt together and perfume, if desired. Cut into blocks of about 2 drams each, and place one in the boiling starch.

- (2) Spermaceti 1 oz.
Borax 1 oz.
Gum arabic..... 1 oz.
Glycerine 2 1/2 oz.
Distilled water..... 14 1/2 oz.

Mix. One ounce is added to each 4 ounces of starch while in boiling water.

A.J.E. For white liniment use the "Lin. terebinthinae aceticum," as given in the National Formulary, or the following, which is known as Stoke's liniment:

- Oil of lemon..... 2 drs.
Glacial acetic acid..... 6 drs.
Yolks of eggs..... 2

- Oil of turpentine 5 oz.
Rose water to make 12 oz.

The turpentine and oil of lemon are mixed gradually with the yolk of egg and a little of the water; then add the acetic acid and balance of the water. Put in a bottle, and shake until thoroughly emulsified.

The Water Tree.

In all the unwatered regions of Australia are to be found "water trees," trees which actually provide a supply of water to those who know where and how to look for it. The most reliable of the water trees are the water mallers, or group of trees, including the *Eucalyptus microtheca*, which form a part of the terrible mallee scrub. Outside of these, the currajong, the desert oak, the bloodwood, and several varieties of the acacia, are water bearing trees.

A correspondent says: "I shall not soon forget my first introduction to a water tree. I was in the northern territory of South Australia, and I was making my first journey through the desert in company with a friend, who was a well-informed bushman. It was towards the end of the day, and as we had been detained for several hours, owing to an accident, we had still fifteen miles to travel. The water bag had been drained hours before, and in that dreadful desert our sufferings had already become intolerable. Suddenly my friend plunged his spurs into his weary horse, and dashed away at full gallop towards a tree some fifty yards off, shouting to me to follow.

"Flinging himself from his saddle, he clawed with his fingers the sand at the base of the tree, and presently laid bare one of its spreading roots. This was torn from the earth to the length of about six feet, and, breaking off a piece about a foot and a half long, my companion, signing me to follow his example, applied one end of the piece of root to his parched lips and elevated the other end. I followed suit, and to my indescribable joy a cool, refreshing draught of water rewarded me. The one root amply sufficed for our wants. There were some ten or eleven left—enough to have satisfied a dozen thirsty men. Some of the water we drained into our water bags. It was clear and cool, but after standing for a few hours I noticed that it became discolored. — *Science Stiftings*.

POWDERED CAMPHOR, prepared as follows, will not again conglomerate (*Der Pharmaceut*): Dissolve camphor in one and a half parts of alcohol, precipitate by the addition of four parts of water. Collect the precipitate and wash with an abundance of water, and dry. By keeping account of the quantity of camphor used, the quantity left in the diluted alcohol can be calculated, and this solution used for making tincture, etc.

Pharmacy in England.

More about Argon—The B. P. Liquors—Café Lylark, or Peptonized Milk and Coffee—Poison in Fly-papers and Weed-killer—Ammonia Cleaning Preparations, a New Specialty.

(By Our Own Correspondent.)

A brilliant audience assembled last week at the Royal Institution to hear "More about Argon," from Lord Rayleigh, Sec. R. S. The lecture theatre is admirably adapted for its purpose, although Professor Dewar always appears uncomfortably cramped when demonstrating. The seats are arranged in the semi-circle of a theatre, and upon the same plan, but the stage is represented altogether inadequately by a square table in the well. Lord Rayleigh is a clear and concise lecturer, with a good command of language and popular style. It is rather a curious commentary upon the petty jealousy that so largely pervades in professional circles, that every effort has been made to indicate Lord Rayleigh as the actual discoverer of argon, and to minimize the value of Professor Ramsay's researches. To his honor, be it said that Lord Rayleigh has never countenanced this view, and has, on every occasion, indicated that all the real labor of isolating and identifying the new element was Ramsay's; and to him the honor is due. The careful work of the latter claimant has now been thoroughly demonstrated by the acceptance of argon by continental chemists, and its atomic weight has been redetermined by Lord Rayleigh by an entirely different method to that used by Ramsay, and found to be identical. This practically indicates that argon is not a compound gas. Again, by means of the determination of the refractive index, it was found that whilst air is 1.000, argon is .961, and helium .146. This negatives the allotropic theory of argon being a condensed form of nitrogen. The question still agitating chemists is, to what position in the periodic law is argon to be placed, and further investigation is still required before this can be directly settled.

The anonymous contributors to the *Pharmaceutical Journal* have continued their work upon the revision of the preparations and formulæ of the B. P. Solutions are the latest class dealt with, and some practical suggestions are made, although many are omitted. It is recommended that the method of preparing *liquor ammon. fort.* be deleted, with which every pharmacist will agree; but nothing is said about the absurdity of having a B. P. liquor of specific gravity .891, whilst commercial liquor is .880. Under *liquor ammon. acet.*, the U. S. P. method is preferred to that of the B. P., and the extraordinary comment is made that, even when prepared neutral, the B. P. liquor is apt to turn alkaline by absorption of ammonia from the atmosphere. The diluted preparations of both this article and *liq. ammon. cit. fort.* should be omitted. Practitioners can as easily prescribe one drachm of the stronger solution instead of 4 drachms of the dilute, and there would often be less confusion. The sug-

gested addition of spirit in order to keep the dilute *liq. ammon. cit.* is, then, quite unnecessary. Hardly enough stress is laid upon the proneness of *liq. atropine sulph.* to encourage cryptogamic growth, and for its prevention camphor water is quite useless. Like boracic acid, camphor seems often to encourage these growths in ordinary distilled water. Experience shows that *liq. ferri acet. fort.* is seldom used, and precipitates on keeping. The stability of *liq. hydrarg. perchlor.* is rarely questioned, and the suggested substitution of hydrochloric acid for the ammonium chloride is certainly not an improvement. *Liq. iodi.* is suggested to receive the name of pigment; but most medical men require the pigment made with glycerine, as more readily absorbed. Whilst it is true that *liq. morph. acet.* is not often employed, the objection raised to acetate of morphine would more suitably apply to the hypodermic injection. The brown coloration and deposit never occur to any extent in the liquor, whilst they speedily do in the injection. It is not commercial wisdom to recommend *liquor potassæ* to be made by dissolving the required amount of solid potash in water. All the expense of evaporating down a *liquor potassæ* must be incurred in order to redissolve the solid potash. For extemporaneous production, such an alternative method might be given.

One of the latest dietetic preparations is café zylath, recently introduced by Messrs. Savory & Moore. It is a combination of essence of coffee and condensed peptonized milk, and will prove a boon to those dyspeptics and invalids with impaired digestive functions who have had to forego *café au lait*. Special care has been taken to thoroughly preserve the aroma and flavor of the freshly ground coffee, and the preparation is very superior to many of the condensed coffee and milk compounds. The milk employed is so well peptonized that on diluting and adding an acid hardly any curds separate, even when left to stand for some hours, and yet there is not the remotest taste of bitterness, which is so nauseous a drawback to the home-made peptonized milk. Messrs. Savory & Moore have evidently a firm belief in the future of this article, as they have made large advertising contracts, and have renewed their space in one of the trade journals from which they removed all their advertising some few years ago. Apart from this, they are sending free samples to all the medical men on the register—an excellent but expensive manner of assuring that a preparation comes under the direct notice of the very class who can recommend it.

During the last year or two the Pharmaceutical Society has developed almost a feverish anxiety to sweep all poisons into the net of the qualified chemist, when for years past they had winked at many of the practices they are now seeking to punish. By legal mandate we are now to be entrusted with the enormous

and overwhelming responsibility attaching to the sale of fly-papers! A little while ago, the consent of one of Her Majesty's judges was sought in order to confine the sale of arsenical weed-killers in chemists' hands. This, no doubt, is all very right and proper, and we ought to be extremely grateful; but the joke of the whole thing is that nine out of every ten druggists do not want to be bothered with these things at all. The West-end chemists, who bulk so largely on the council, would be the very first to decline to sell these articles at all; so that we are face to face with the position of the council practically trying to prohibit their sale.

It is well-known that several West-end chemists regularly decline to sell oxalic acid and other commercial poisons, because, if an accident should happen, and someone intentionally or inadvertently, took the poison, a thick-headed jury is just as likely as not to censure the sellers, although they may have been strictly correct and within the law during the whole transaction. Indeed, a good deal of the cant about our wretched Poisons Act is due to this feeling, that the game is not worth the candle. But the policy that seeks to prevent others from selling what one does not care to do oneself is not likely to commend itself to our legislature, and the council of the society is probably paving the way to having the whole of this prosecution business removed out of their hands. For this some of the councillors would be truly thankful. It is unpleasant at the best of times, but more so when the duty has been neglected for twenty years.

Under the curious title of "exsol," the Chemists' Association have introduced an improvement on the well-known cloudy ammonia cleaning liquid. Exsol is more portable, and, one might almost say, is a condensed form of the popular household cleaning ammonia. It is a thick jelly of white appearance, and containing a large percentage of ammonia. It dissolves or mixes readily with water, and is a useful preparation either for the bath or for cleaning purposes generally. But just as soap extract was a great improvement, in the housewife's view, over soap, so a powdered form of this cleansing ammonia would probably catch on. The carbonate of ammonia would, doubtless, form a good basis with the admixture of powdered soap and, possibly, some borax. This would form the most portable, condensed, and convenient form of cleansing ammonia, and would possess admirable cleaning properties. Of course, a fanciful name should be devised and protected, and then small samples should be introduced locally, to see with what favor it is received. If the chemist has already a good trade for a certain specialty, such as a corn cure, cough mixture, etc., he would find it probably good business to enclose a free sample of such a new universal cleaning powder with each packet. It is wonderful what interest the public take in these free samples, and what good results usually follow,

Extract Ficus

"E. & CO."

Syrup of Figs.

This is not a secret remedy, but contrariwise. The label bears the plain information that each fluid-ounce contains the active principles of 125 grains Alexandria Senna. For this reason the physician is able to prescribe it with exactness.

The flavour of Senna is completely disguised by a delicious cordial, in which the fig flavour predominates. Nausea and griping are overcome.

SHELF FORM - - - \$3.75 per doz.
16 Oz. BOTTLES - - - 65 cents each.
½ Gall. BOTTLES - - - \$3.25 each.

**Canadian
Cattle Spice**

Many druggists are in the habit of preparing, or having prepared for them, some kind of CONDITION POWDER.

To meet such requirements we have selected a thoroughly reliable formula, according to which we manufacture such quantities as enable us to sell our product, in place of private formulae, at considerably lower cost.

To create a demand it is sold under the above popular title, and each shipment is accompanied by a supply of advertising matter.

100 POUND COTTON BAGS.
1 QUART CARTONS.

Ask for more "Ads." when required.

Effervescing Hydrobromate of

Caffeine

and

Bromide of Potassium

"E. & CO."

What more common than Headache, Over exertion (mental or physical), Sleeplessness, etc.?

In this preparation we offer an excellent remedy at a price that ensures a large demand.

10 cent samples contain two doses, and the 25 cent size contains twelve full doses.

Evidence is plentiful that success attends its introduction, provisional upon some attention to its display.

When received we will issue handsome advertising panels.

ALL OUR SPECIALTIES ARE REMUNERATIVE.

Manufacturers of
PILLS, FLUID EXTRACTS, ETC.,
AND PHARMACEUTICAL
SPECIALTIES.

Elliot & Co.
TORONTO

MANUFACTURING
PHARMACEUTICAL CHEMISTS
AND DRUG MILLERS.

**"Sure
Death"**

One of the very Best and Cheapest
Rat Poisons on the Market.

◆◆◆
\$9.00 PER GROSS.
◆◆◆

NEATLY PUT UP.SELLS QUICKLY.**ARCHDALE WILSON & CO.****HAMILTON.**

We Manufacture

Envelopes
Writing Tablets
School Blanks
Memo Books, etc., etc.,

And are Headquarters for

ALL KINDS of **STATIONERS' SUPPLIES**

DO YOU WANT THESE GOODS?
Then write us for prices.

THE W. J. GAGE CO., LTD.,
52-54 Front St. West, - - TORONTO.

J. STEVENS & SON,
78 LONG LANE, - LONDON, E.C.,
ENGLAND

Red Cross English Dressings,
Druggists' Specialties,
Glass and Earthenware,
Hospital Supplies and Instruments.

1895 List and Discounts now ready.

CANADIAN AGENCY:
145 Wellington Street West,
TORONTO

We have a
New Line of

**Hot
Water
Bottles**

which we are offering to the
trade at

Very Low Figures

We can give you a two-quart
hot water bottle to retail at
75 cents each.

Prices and quantity discount on
application.

ALPHA RUBBER CO., LTD.
MONTREAL, CANADA.

Baylis Manufacturing Co.

16 to 30 Nazareth Street,
MONTREAL

IMPORTERS OF

Linseed Oil
Turpentine
Castor Oil
Paris Green
Glues

WRITE
FOR
QUOTATIONS

FROG IN YOUR THROAT



For Sale by all Retail
Druggists, and Wholesale
by the LONDON DRUG
COMPANY.

Trade Mark



Registered

TYPKE & KING

CHEMICAL MANUFACTURERS

7 Jeffrey's Square,

St. Mary Axe,

LONDON, ENG

Hypophosphites a Specialty

Acids Phosphoric and all other Pure Acids.

Ammonia Nitrate, Oxalate, Valerianate
and all Ammonia Salts.

Antimony Crocus, Sulphide, Golden Sul-
phuret, and all Antimonial Pre-
parations.

Essences from Fruit, etc., for Confectionery.

Hypophosphites Baryta, Iron,
Lime, Magnesia,
Manganese, Potash, and Soda.

All Chemicals for Analytical, Photo-
graphic, and Pyrotechnical purposes.

THE
Lyman Bros. Co.
(Limited)

TORONTO, ONT.



Lyman's Lightning Fly-Paper

As manufactured and sold by us for
forty years, will be brought out this
season in a more convenient shape. It
will be put up in Octagon-shaped pieces,
6 pieces in a packet, retailing at 10
cents, and 3 pieces in a package for 5
cents.

Our travellers will soon have sam-
ples and particulars.

It will pay anyone to see these
values before placing their spring orders
for fly papers or pads.



WE have been making exten-
sive improvements and al-
terations in our warehouse (now just
about finished), and, at the same time,
keep up our record for prompt ship-
ment of orders. Under the circum-
stances, we would be glad if our friends
would take a lenient view of any errors
that may have occurred during that
time. We hope when alterations are
completed to be able to give a more effi-
cient service, and be able to show our
large stock of sundries in a way that
will be more satisfactory to both our-
selves and customers.

Trade Notes.

A McLister has opened a new drug store at Alexandria, Ont.

R. W. McCarthy, druggist, St. John, N.B., has been closed under bill of sale.

G. O. Spencer has purchased the drug business of C. T. Nevins, Moncton, N.B.

G. A. Peaker, druggist, 353 Spadina Avenue, Toronto, has made an assignment.

Mr. Joseph Contant has been elected president of the Chamber of Commerce, Montreal.

Rumor says that department stores are shortly to be opened in Halifax, N.S., and Montreal, Que.

James Kilman, druggist, of Newmarket, Ont., has made an assignment: liabilities about \$5,000.

G. J. Little has sold his drug business, 1289 Queen street west, Toronto, Ont., to A. D. Deverell.

A. H. Allin, lately with J. R. Lee, Toronto, has purchased the drug business of W. R. House, Whitby, Ont.

Hon. James J. Fellows, F.R.C.S., the originator of Fellows' Compound Syrup of Hypophosphites, died in London, England, January 22nd.

D. Gibbard, who formerly represented Lyman, Sons & Co., in Western Ontario, is now warehouse manager, and W. R. Carmichael takes his place on the road.

The firm of Lyman, Sons & Co, wholesale druggists, Montreal, has been registered as now consisting of Henry Lyman, Henry Herbert Lyman, and Arthur Lyman.

Hemming Bros. & Co., 76 York street, Toronto, dealers in drug sundries, etc., have gone into liquidation. The company was incorporated in 1887, with a capital stock of \$50,000.

Mr. Frank Benedict, on leaving Messrs. Lyman, Sons & Company, Montreal, to take a position with Leeming, Miles & Co., was presented by his fellow employees with a gold locket as a mark of esteem.

The "A.M.C. Medicine Company," Montreal, has been incorporated with a capital of \$30,000, divided into 300 shares. The incorporators are Messrs. William Lovitt Hogg, James Dixon, William Thomas Goff, Joseph Wilfred Michaud, and Frederick Goodwin, all of the city of Montreal.

Mr. Henry Miles, who, at the beginning of the year, severed his connection with the drug firm of Lyman, Sons & Company, has formed a partnership with Messrs. Thomas Leeming & Company, of New York. The new firm, which will carry on the business of druggists' specialties, will be known under the name of Leeming, Miles & Company. Premises have been leased at the corner of De Bresoles and St. Sulpice streets.

The partnership heretofore existing between Thomas Leeming, Thomas Gil-

mour, and William B. Gilmour, under the style and firm name of Thomas Leeming & Co., Montreal, has been dissolved. A new partnership has been formed between John L. Gilmour, Thomas Gilmour, and Mr. B. Gilmour, under the firm name of Gilmour Bros. & Co., and will continue at the old premises, 25 St. Peter street. This represents in Canada Johnson & Johnson, Humphreys' Homoeo-Medicine Co., and other United States and European firms.

Montreal Notes.

The Pharmacy Students' Association gave their annual dinner on February 5th, at the Richelieu Hotel. There was a very large attendance. Mr. Genest presided with marked ability, and proposed the usual loyal toasts in good style. At the table of honor we noticed Sir William Hingston, M.D. (who, to his credit be it said, was a drug apprentice in the far-off fifties), Mr. Ebenezer Muir, Mr. Henry Miles, Major A. Moore, Professors Read, Benrose, Lecours, Pfister, and Morrison. Letters of regret at unavoidable absence were read by the efficient secretary, Mr. P. G. Mount, from leading pharmacists. The speeches were received with much *adlat*, and a most enjoyable evening was spent.

Mr. Muir, the indefatigable secretary and registrar of the Pharmaceutical Association, has been on a voyage of discovery to the eastern townships by order of the council, and has met with several cases of contravention of the Pharmacy Act. He also interviewed the gentleman who personated another gentleman at the last preliminary examination. Action at law has already been commenced in this case, and several others are on the *tapis*. In the personation case it is hinted there is something much more serious involved.

On dit, that Mr. Morrison, Messrs. Lyman, Sons & Co.'s laboratory chemist, has decided to bring out a new drug journal to replace the one recently issued by Messrs. Lyman, Sons & Co., and which is now, since the dissolution of partnership, published and edited by Mr. Henry Miles. The name of the new journal, according to the *Pharmacie Canadienne*, is to be the *Pharmaceutical Gazette*.

Propos of pharmaceutical journals, are they not already too numerous? Montreal and Toronto now produce five, while the different states of the Union are increasing their numbers daily. Every wholesale house will soon have its organ, and it is presumed will give it away gratis and live on the advertising patronage. Let us hope that trade rivalries will not find expression in the editorial columns.

Mr. L. Lachance has bought out the Tailloretti Pharmacy, corner of St. Andre and Ontario streets. He proposes to carry it on as a branch.

Messrs. Kerry, Watson & Co.'s annual sleigh ride and supper took place last week. It was given to the employees of the house, about sixty in number. Mr.

David Watson Jr. presided, and a jolly time was spent. The generosity of this old established firm was much appreciated.

A meeting of the retail druggists was held last Wednesday, under the presidency of Mr. Tremble, to take steps to form a Quebec Province Association, to protect its members against the absurd cutting rage, which seems to infect everybody during hard times. Nothing very practical resulted, but it will take very little to bring the mass of the druggists together in an association when required.

Nova Scotia Notes.

SYDNEY, C.E.

Mr. Gordon MacGillivray has returned to his home, feeling well pleased with his success at the Pharmaceutical Examinations.

Messrs. Copeland & Co., have completed and moved into their new store, which is one of the most convenient and well-appointed stores in the lower provinces.

CANSO.

Mr. Tupper Foster is again at his post after some months in Halifax, where he passed successfully the examinations before the Board of Pharmacy.

ANTIGONISH.

Mr. J. D. Copeland is now in his element, as the curling season is on, and all the hours he can spend from his store are devoted to "the roaring game."

NEW GLASGOW.

G. B. Sutherland has sold out his business in New Glasgow to Messrs. Grant Bros., formerly of Stellarton and Westville. We understand Mr. Sutherland intends going into the manufacture of extracts in the United States. New Glasgow will miss him.

STELLARTON.

Mr. G. A. Grant has gone from Stellarton to manage the business formerly carried on by G. B. Sutherland in New Glasgow.

Mr. J. H. Kavanagh, of J. W. Jackson & Co., New Glasgow, is now in Halifax, assisting Mr. E. B. Sutcliffe in his new undertaking.

AMHERST.

Amherst boasts of a first class Curling Club, of which Mr. R. C. Fuller is the popular president.

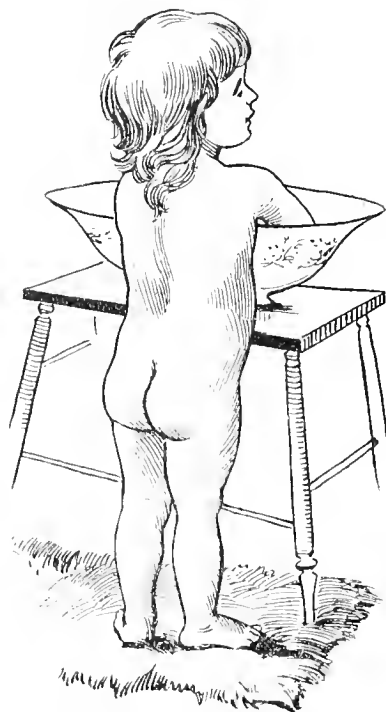
TRURO.

Mr. J. D. Clarke, formerly with Messrs. Crowe Bros., is now in Sherbrooke, in charge of the business of Edmund Jenner at that place.

HALIFAX.

Messrs. Forsythe, Sutcliffe & Co., of Halifax, have purchased the warehouse formerly occupied by Messrs. John Stairs & Co., and are transforming it into a well-appointed wholesale drug warehouse.

At the examinations recently held by the Board of Pharmacy in Halifax, the following passed successfully: A. A. Patterson, Halifax; Edmund E. L. Jenner,

**TOILET BRUSHES**

TOOTH
HAIR
CLOTH
AND
NAIL

BRUSHES

NAIL CLEANERS AND EAR SPONGES
FROM BEST FRENCH MAKERS

Tooth Brushes from \$3.50 to \$30 per gross.
Hair Brushes from \$1.25 to \$20 per dozen.

Over one hundred sizes of each in stock,
or on the way.

We are headquarters for these goods. (Can send samples to
price by mail, or small range by express.)

IT WILL PAY YOU

To write us for quotations

MEAKINS & CO.

MANUFACTURERS AND IMPORTERS
OF BRUSHES.

313 ST. PAUL STREET, MONTREAL.

"Surf" Sea Salt

is a new 15c. pkg., put up in 1 doz. 5 lb. pkgs. per case.
Price, \$11; per gross (12 cases) \$11. Wholesale houses
sell it. Pkg. is a new patent cardboard one, and hand-
somerly printed. Sales of first week in Toronto 120
cases. The salt is clear as glass and of a size that dis-
solves readily. It never gets damp, and contains no
dirt or grit. Analyze 99.98 per cent. pure salt. You
can work up a good salt trade if you try. Why not
do it?

TORONTO SALT WORKS, Toronto, Importers.

ALL KINDS OF . . .

CRUDE DRUGS.

— SPECIALTIES OF —

**FREDK. GRAF, DRUG
MERCHANT,**

65 FENCHURCH ST., LONDON, E.C.

Established 1886. Prices and samples on application.

Fine Fruit Tablets



ENGLISH FORMULA TABLETS

Have been our specialty
and have been a success.
Packed in elegant Flint
Glass Jars, large glass stop-
per, the finest package in
the Dominion. Also in
round jars, similar to Eng-
lish, but made two inches
shorter to fit the ordinary
shelf. A large variety.
List of flavors and prices
on application.

**G. J. HAMILTON
& SONS,
PICTOU, N.S.**



W.A.GILL & Co. COLUMBUS, OHIO, U.S.A.

PLAIN, LACQUERED
AND DECORATED

BOXES

MAKE THE BEST
SEAMLESS TIN

• IN THE • MARKET •

For sale at Manufacturers' Prices by the leading whole
sale druggists and druggists' sundrymen
throughout Canada.

Complete Illustrated Price List free
on Application

A poor wheel is like a poor horse—it costs more than it's worth to keep it. In the MONARCH the necessity of repair has been reduced to a minimum. Its strength, lightness and beauty make it a marvel of modern mechanical skill. The

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is undoubtedly king of bicycles. A wheel that you can depend upon in any emergency. Made in 4 models. \$85 & \$100. Send for Monarch book. MONARCH CYCLE MFG. CO., Lake and Halsted Sts., CHICAGO.

Branches—New York, San Francisco, Portland, Salt Lake City, Denver, Memphis, Detroit, Toronto.

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6 and 8 Adelaide St. W., Toronto.
P. R. WRIGHT, Proprietor.

A DRUGGIST'S SPECIALTY.

**Gurtis & Son's
Yankee Brand
Pure Spruce Gum**

Is meeting with the success
its high qualities merit.

A TRIAL ORDER SOLICITED.

**CURTIS & SON
PORTLAND, ME., U.S.A.**

Sponges.*

By WILLIAM B. BURK, Philadelphia, Pa.

The sponges are even now popularly regarded as plants, although for many years naturalists have recognized them as members of the animal kingdom, while the investigations of the past 25 years have shown them to be animals of by no means the lowest type. All of the higher animals, including the sponges, are composed of multitudes of cells, each performing its own part in the economy of the individual, and while reproduction by division is frequent in certain groups, all have recourse to specialized cells or eggs for the perpetuation of the species. On account of these differences, all multicellular animals have been collectively termed metazoa, in contradistinction to the single celled protozoa. There is here a similar relationship to that which exists between the spore-bearing and the seed-bearing plants. In an egg-bearing animal there is a specialization of some of the cells of the tissues and parts to form the male and female reproductive elements, just as in the flowering plant there is a similar specialization of the tissues and leaves to form the male and female products and the organs of reproduction, and as the latter, by the union of the sexual elements, form fertile seeds, so in the metazoa the union of the egg, or female element, with the spermatozoon, or male reproductive product, produces a fertile egg.

THE HABITAT OF SPONGES.

Sponges are all aquatic, are found in the waters of every part of the globe, and in suitable locations may be exceedingly abundant. So far as known, they are all sedentary animals, constrained, with few exceptions, to pass all but the earliest stages of their existence fastened to the same submerged object to which they become attached in their early youth. The young possess powers of locomotion, and can seek out new places of abode, but the adults must remain in one place and take whatever of food or fortune the passing currents may bring them. Thus they can only live and flourish where there are floating clouds of microscopical plants and animals, and their spores. These form their staples of subsistence, and must come to them as the rain comes to the plant. They can use for the reception of food only the upper and lateral surfaces of the body, the lower, attached surface being, of course, unavailable for such purposes. To this rule there are some exceptions. For instance, a sand sponge has no base of attachment, and is apparently capable of living with either side uppermost; there are also some wanderers, sponges which have broken away from the base, and, still living, are rolled about on the bottom. Some of the commercial sponges are said to be tough enough to stand this.

Among those which live near the shores, and in the varied conditions of the shallow water habitats, there is the strangest diversity. Every change of bottom, every change in the surrounding conditions of the current, or the place to which the larva may become attached, has some effect upon their aspect. Thus in the same species we find flattened sheets, irregular lumps and clumps, and branching, bush-like modifications of each of these in every variety, and, finally, vase-like shapes, either imperfect and open on one side, or perfect and not wholly without grace of outline.

If we pass from the varied bottom of the shore line to one of uniform character, whether the mud bottoms of the deeper waters of the ocean or those nearer the shore, or the sandy shallows, where the surroundings and conditions of life are more uniform, we find that the sponges inhabiting these localities are remarkable for greater uniformity of shape within the species.

THE PHYSIOLOGY OF SPONGES.

The sponges have thousands of minute cavities within the body devoted to performing the functions of digestion. These cavities receive their food from streams of water, circulating through a double system of tubes, and flowing in through the narrow meshes of a network formed in the outer covering or skin of the body. With this sieve-like structure there is no use for any particular set of external appendages, and no necessity for any fixed symmetry of form. All that the sponge needs is a capability to adapt itself to its surroundings, and the sole requisite of success in obtaining food is the presentation of as much surface as possible, thus securing a large supply of water and accompanying food. Such an organism requires a peculiar skeleton, since the internal tubes and minute stomachs would be liable to compression by the weight of the soft tissues, after the attainment of a certain size, unless some firmer framework was interposed; we find in most sponges such a supporting skeleton. In some cases this framework is formed by a woven mass of elastic threads, of a horny nature; in others the framework is composed partly of such threads and partly of stiff and unelastic spicules which may be calcareous or siliceous, or, in still other cases, of a network of spicules, united by only a small material of horny or siliceous material.

The same principle of construction runs throughout the whole of the porifera: the skeletons are really networks of scaffolds of spicules, or of threads permeating all parts of the body, in order to support the whole mass and keep open not only the digestive ampullæ, but also the numerous tubes for supply and drainage. A skeleton is not, however, an absolute essential in all the members of any branch of the animal kingdom; thus there are sponges entirely destitute of spicules or threads, but these are mostly flattened or small vase-like forms, in which the weight is

small in proportion to the strength of the tissues.

CHARACTERISTICS OF COMMERCIAL SPONGES.

In the commercial sponges the skeleton is an intricate mass of interwoven elastic, horny threads, as may be seen by slicing one through the middle. This network is permeated by numberless tubes, but these can be reduced into two systems, one leading from the interior outward and the other leading from the external surface toward the interior. The first or internal system is composed of several large trunk tubes, largest exteriorly, but branching and becoming smaller as we approach the interior. The outer surface of the sponge is ornamented with projecting bunches or ridges of threads. Between these projections there are numerous depressions, the bottoms of which are perforated by openings of medium size, which we can follow as tubes leading into the interior by examination of the cut surface of the section.

These are the tubes of the external system. They often terminate abruptly, but here and there are divided into branches, and we can see that they really diminish in size toward the interior. Not infrequently these tubes may be traced directly into the trunks of the internal system, but in this case their walls are thickly set with the openings of small tubules which lead into systems of tubes diminishing in size internally, and, therefore, belonging to the external system. The dried skeleton looks as if there was no room for fleshy material between the meshes, but the increase in size upon wetting a sponge shows that when in the natural element, and fully expanded, there is plenty of room between the threads for all the organs we have to describe. These sieve-like openings, the superficial hollows, and supply system act as feeders, bringing water loaded with nutriment to the ampullæ or digestive sacs. After digestion, the refuse is passed out of the ampullæ into the internal system and thence into the large central trunks, which finally open on the outside of the sponge in large crater-like orifices. In some sponges these two systems of canals are not distinguishable, and there is but one outlet to the ampullæ.

THE SKELETON.

One of the most interesting points to the naturalist lies in the history of the skeleton and its elements. This consists of two parts—the thread of binding substance of horn or keratode and the hard mineralized spicule. The form of spicules varies greatly, and affords good systematic characters. Some are pointed at one end, some have both extremities acute, while others may terminate at one or both ends like anchors. They may be smooth or variously knobbed and ornamented. We cannot hope to disentangle the intricate relations of the parts in such confused structures as the sponges without studying the history of their development. The

*Read before the Pennsylvania Pharmaceutical Association.



"BLUE



SEAL"

COFFEE - CHOCOLATE - FLUID BEEF

Have such a delicious flavor and are so rich, smooth, and invigorating that they delight every one and are therefore now being dispensed by the best Druggists of this country. We warrant them for strength, uniformity, and fine flavor unsurpassed, if equaled, by any other extracts. A trial of them will convince you.

Send for Free Samples

or order trial package that is returnable at our expense if not perfectly satisfactory.

Blue Seal Coffee Extract	75c. a lb., \$4.00 a gal.
Blue Seal Chocolate Extract	50c. " 2.25 "
Blue Seal Fluid Beef, \$1.00 a lb., \$4.00 for 5 lb. bottle,	6.00 "

(Order, if you prefer,
through your Wholesaler.)

McKEY & CO., Boston.

(No Charge
for Packages.)

Ontario Society of Retail Druggists.

The following circular has been issued to the retail druggists of Ontario :

Woodstock, Ont.,
February 6th, 1896.

FELLOW DRUGGISTS,—The Executive Committee appointed by the Ontario Society of Retail Druggists beg to notify the members of the said society that the arrangement with the wholesale druggists, jobbers, and manufacturers has been consummated, and that on and after the 17th day of February, 1896, the regular retail prices of patented and proprietary medicines shall prevail.

FELLOW DRUGGISTS,—The following is our Friendly List. These firms have promised to help us make our profession profitable as well as honorable. Will you reciprocate? Please keep this in sight as a reminder.

The Lyman Bros. & Co. (Ltd.),	Toronto.
Elliot & Co.,	"
Northrop & Lyman Co. (Ltd.),	"
Lyman, Knox & Co.,	"
Edmanson, Bates & Co.,	"
J. Winer & Co.,	Hamilton.
Arch. Wilson & Co.,	"
T. Milburn & Co.,	Toronto.
H. Skinner & Co.,	Kingston.
Lyman Sons & Co.,	Montreal.
Kerry, Watson & Co.,	"
Evans & Sons (Ltd.),	"
Lyman, Knox & Co.,	"
J. Gustave Laviolette,	"
Dr. E. Marin & Co.,	Quebec.
E. Giroux Frere,	"
W. Burnet & Co.,	"
Brayley Sons & Co.,	Montreal.
The London Drug Co.,	London.
James A. Kennedy & Co.,	"
The Dodds Medicine Co. (Ltd.),	Toronto.
T. W. Chamberlin & Co.,	Prescott.
The T. A. Slocum Chemical Co. (Ltd.),	Toronto.
The Woodward Medicine Co.,	Toronto.
D. Densmore & Co.,	"
Henry K. Wampole & Co.,	"
G. A. Gibbons & Co.,	"
Warner's Safe Cure Co.,	Rochester.
J. H. Sanderson,	Richmond Hill.
The Balm Medicine Co.,	Toronto.
Gilmour Bros. & Co.,	Montreal.
Johnson & Johnson,	"
The Papoid Co.,	"
Upjohn Pill and Granule Co.,	"
Dr. Bengue,	"
Radway & Co.,	"
Allan & Co.,	Toronto.
C. A. Vogeler & Co.,	"

WHOLESALE AGREEMENT.

Below is the agreement which has been signed by the wholesale druggists, jobbers, and manufacturers, whose names are on our Friendly List :

"We, the undersigned manufacturers, jobbers, wholesale and retail druggists, agree to do all in our power to abolish the system at present known as the 'cutting' system, and establish uniform prices

for the retail sale of patent and proprietary medicines.

"And we, the wholesale druggists and manufacturers, agree not to furnish any goods, paints and oils excepted, to those who persist in selling patent and proprietary articles below the regular retail prices, which retail prices, in the case of patent and proprietary medicines, are to be fixed by manufacturers.

"It being understood that all patent and proprietary medicines be purchased solely through the wholesale druggists and jobbers, and that in the purchase of all drugs, chemicals, dyestuffs, and sundries, they shall at all times have the preference over other dealers.

"It being understood, as part of this agreement, that the retailers shall not substitute in the sale of patent or proprietary medicines.

"The parties hereto agree to do all things in their power to lawfully advance the interests of pharmacy, and it shall not be the spirit or intention of this agreement to do any unlawful act, nor to assist or permit any other person or persons to do any unlawful act, or one prohibited by statute."

RETAIL AGREEMENT.

"We, the retail druggists of the Province of Ontario, agree to buy our patent and proprietary medicines solely from wholesale druggists and jobbers, and we further agree to co-operate with each other in every legitimate way to promote our common interests and our profession in general. Also considering the co-operation of the wholesale druggists and jobbers in matters pertaining to our interests, we agree, all things being equal, to give them the preference over other dealers in the purchase of our sundries. We further agree to maintain the prices intended by the manufacturers of patent and proprietary medicines, and to retail drugs, chemicals, and specialties at prices for which they are fairly and usually sold, or, in case of articles other than patent or proprietary, as agreed upon by the majority of the local or district association. And we also further agree, in no case, to substitute in the sale of patent or proprietary articles."

The above is the form of agreement that you have signed, and the Executive of the Ontario Society of Retail Druggists request that you be loyal to it and live up to your contract, and also to be loyal to the instructions given you by the Executive.

Very truly yours,

G. E. GIBBARD,

President.

J. T. PEPPER,

Secretary-Treasurer.

In addition to the above-named firms, we are informed that Parke, Davis & Co., of Detroit and Walkerville, Ont., have expressed their willingness to sign the agreement also, provided that manufacturers of pharmaceutical products are included amongst the wholesalers. They have, we understand, insisted on their

agents making an agreement not to sell, directly or indirectly, to any departmental stores.—Ed.

Prof. Heebner's Illness.

Owing to illness, produced by overwork, Prof. Heebner, Dean of the Ontario College of Pharmacy, has been ordered by his physician to take a complete rest. The council, at their recent meeting, granted the Dean one month's leave of absence. He has gone to Dansville, N. Y., to recuperate, and we trust to see him return shortly thoroughly recovered.

His duties at the college are taken, in the meantime, by Messrs. W. Murchison and M. B. Ashton, both former graduates of the college.

Artificial Wintergreen Oil.

Thayer gives the following practical method of applying the hydrochloric acid process for the manufacture of synthetic wintergreen oil: Take 505.47 grammes of salicylic acid and 690.85 grammes of methyl alcohol (sp. gr. 0.820); place the alcohol in a wide-mouthed flask, and add portions of the acid until a saturated solution is obtained.

Make the additions slowly, as all of it will not dissolve. Connect the flask with an upright condenser, and heat it on a water bath until the contents are brought to the boiling point, then pass dry hydrochloric acid gas into the hot solution until the latter is saturated. Then add about 10 grammes more of the salicylic acid, again saturate the solution with hydrochloric acid, and repeat the operation until all the salicylic acid has been added, the passage of the hydrochloric acid gas being continued for two hours after the last addition of the acid. It is necessary that the gas be thoroughly dried by being passed first over anhydrous calcium chloride, then through three bottles of sulphuric acid, before being conducted into the salicylic acid solution.

The lower oily layer which separates is washed with water until no longer acid to litmus, then distilled from a flask by the aid of live steam, the distillate is freed from excess of water by the use of a separating funnel, and finally dried thoroughly over anhydrous calcium chloride. The product thus obtained is of a slightly yellowish color, has an agreeable odor, and costs 50 cents to \$1 per pound, the above quantities yielding 500 grammes of methyl salicylate. Ethyl salicylate, which has a more delicate odor, and a lighter specific gravity, can be prepared in the same way.—*American Journal of Pharmacy*.

The *Leipsiger Nachrichten*, Berlin, says that Dr. Behring has discovered an anti-cholera serum, and announces that a public demonstration of its properties will be made at an early date.

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

FEBRUARY 15TH, 1896.

A Departmental Store Transaction.

Still another annoyance to the drug trade of Toronto, and with it to the drug trade of Canada, has appeared in the development of a full-fledged drug department in the new store of R. Simpson, in this city. Hitherto his stock in this line has been confined mainly to some patent medicines, but now a stock of drugs has been added and a general drug business is being carried on. The source from which he has obtained these goods has been a disturbing question amongst the retail druggists of the city, and reports and statements have been circulated, some of which have been calculated to cast a reflection on the business methods of one of our most reputable wholesale drug firms. We have made it our business to enquire into the matter, and are in a position to place the facts before our readers—facts which we have proved conclusively to be perfectly correct.

Some time ago, the Lyman Bros. & Co. received one or two orders from a medical supply and sundry house who, we understand, are regular customers of the different wholesale houses of the city. These orders were sent in the usual way, and the first order was filled after assurance had been given that the goods were to be sold in the regular way, that is, to doctors and druggists. The second order aroused some suspicion, but was filled, and rumor being circulated that the departmental store was being supplied by this firm, who have travellers employed and do quite a business with a number of city and country druggists, other orders in hand were cancelled. A few days later Lyman Bros. & Co. received, evidently, a part of the same order from a retail druggist in Toronto. It was also refused, and a few days later still another order, apparently part of the previous one, came from another source, and it also was refused. It is to be regretted that any report should be circulated which would cast any reflection on a business house without due enquiry having been made as to the correctness of the report, and that any representative of another house should, as has been the case, try to further the spread of any such report. Such a course, under such circumstances, tends to do away with that

confidence that is so necessary for the proper carrying out of the vital project in hand for the protection of the drug trade generally. Messrs. Lyman Bros. & Co. were one of the originators of this plan, and we do not wonder the members of the firm feel hurt at the attitude of a portion of the retail and some wholesale druggists in this matter. We might add that the wholesale houses are under no agreement with the retailers, up to the present moment, not to sell anyone, and any action of that kind at present is done independently by the various houses.

Unanimous Action.

We would remind the trade that nothing can be accomplished towards lessening the evils which beset trade except by the hearty co-operation of every retail druggist in Canada. The presence of so much distrust, jealousy, and selfishness as is exhibited amongst many of the druggists of Toronto, as well as outside of it, is sure to wreck any attempt made to provide a remedy for the existing state of affairs, and unless these feelings are put aside, and perfect harmony and unanimity of purpose exist, all the societies or organizations which may be brought into existence will avail nothing. The druggists have been in the past their own enemies, and it has been the treachery within the camp that has done more to bring on the unfortunate state of business as it exists than all the departmental stores put together could do.

Hearty co-operation in the present effort to form an association, which, if carried on with vigor, will prove a great boon, is one of the means towards the desired end; the other is a feeling of confidence that every man in the trade is willing and ready to further the object, and a spirit of trust, and faith in the good intentions of each other, will bring about a state of things which will be the means of at least stemming the tide of affairs which threatens the entire demoralization of the drug trade of this country.

We appeal to every lukewarm druggist who is not interesting himself in this battle for his rights, and also those who, through thoughtlessness, or otherwise, have lent themselves to the degrading practice of cutting prices, to make one good strong effort to save the trade, to bring back a state of affairs which must be eminently more satisfactory to all.

No true pharmacist should, at this juncture, hold back from joining an associ-

tion which has for its object the betterment of everyone connected with the drug trade.

A Prospect for Optics.

This journal has repeatedly drawn the attention of druggists to the financial interest they might derive from a thorough study of the subject of optics. In conversation with one of the leading druggists of the province, recently, the gentleman referred to asserted his positive conviction that the trade in optical instruments, properly cultivated, could become much more profitable than the handling of patent medicines. He also expressed an opinion with which we heartily concur, and one which we are satisfied the council of our college will adopt at no distant date, that the establishment of a course of instruction in the college during the summer months, at which graduates who are in business, and who pay annually to support the institution, could attend at a nominal cost, would do much to make druggists feel that they could get a fair return for their annual outlay, and to incite them to raise to a higher plane a branch of trade which unskilled and inexperienced workmen are to-day controlling. We are satisfied that while for the present the council has seen fit to defer action, they have done so while mentally considering how it could be brought about.

There is no reason why druggists should not receive a diploma of qualification directly from their own school; nor is there any why they should not cater to the wants of the eyes as readily as to other portions of the physical economy. If good and just reasons can be given why druggists should not embark in this line of trade, we shall be pleased to give them publicity and to cease advocating this cause; but if not, we must conclude that, it being in the best interest of every retail druggist, we must uphold it.

Potassiumorthodinitrocreosolate is the name of a new antiseptic discovered in Germany, but, as it is intended to be used generally, it is also called adtinoupin. One part of the substance in from 1,500 to 2,000 parts of soapsuds is destructive to all the common parasites injurious to plants. Yeast used in brewing remains fresh for a long time when treated with it; it destroys all bacteria, and yeast can endure a solution as strong as five per cent. of the substance. It is odorless and very cheap.—*Scientific American*.

Mok-Ko-Ka

THE ROYAL SILVER AND GOLD
FLOWER OF JAPAN

This flowering shrub of the Sunny Kingdom is not unlike our Canadian Lilac in appearance, with its conspicuous spikes of small flowers, yellow on the outside and white within.

The odor of this pleasing flower is quite noticeable throughout the Island during the months of our Autumn. This perfume has had a very ready sale this season.

Put up in 8 oz. bottles by

SCOTT & MACMILLAN
Toronto

Cluthe's Bankrupt Stock of
Trusses
Shoulder Braces
ETC.

Druggists if you have any customers wearing or wanting this make of appliances, now is the time to secure them. We bought the stock, and, as we want to get rid of them quickly, we are offering them at less than half the old prices. We have also the whole stock of Instruments for Deformities, etc., which will likewise be sold cheap.

WRITE FOR PRICES.

DORENWEND ELECTRIC BELT & TRUSS COMPANY
171 QUEEN STREET WEST, TORONTO

Manufacturers of Trusses, Electric Belts, Insoles, Abdominal Supporters, Suspensories, Instruments for Deformities, Etc., Etc.

Have you **TEETHING NECKLETS** in Stock?
our
RETAIL AT 50 CENTS. WHOLESALE, \$3.00 PER DOZEN.
TRY A FEW!

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UNITED STATES HEALTH REPORTS (Official Endorsement, June 19, 1895, page 10.)

"In the interest of the masses for whom these Reports are compiled, the United States Health Reports have examined and investigated many preparations having for their object the cure of the tobacco habit, but among them all we have no hesitancy in giving the editorial and official endorsement of these Reports to the remedy known as **Uncle Sam's Tobacco Cure**, manufactured by the Keystone Remedy Co., at 217 LaSalle Street, Chicago. We have demonstrated by personal tests that this antidote positively destroys the taste and desire for tobacco in ten days, leaving the system in a perfectly healthy condition, and the person using the same forever free from the habit.

"In the light of our examinations and tests of **Uncle Sam's Tobacco Cure**, we are but performing a duty we owe the public when we endorse the same, and stamp it as the crowning achievement of the nineteenth century in the way of destroying a habit as disgusting as it is common (**for only \$1.00**), hence we earnestly advise you to write them for particulars."

For Sale by all Wholesale Druggists

The Ontario College of Pharmacy.

The regular half yearly meeting of the Council of the Ontario College of Pharmacy convened in the college buildings, in Toronto, on Tuesday, the 4th inst., and three following days. The sessions were marked by plenty of good solid work, and very little time wasted in unnecessary discussion or useless talking, and, though no startling legislation was enacted, many matters of considerable interest to the college and the trade at large were given consideration.

The financial condition of the institution was naturally the subject of much pardonable congratulation and satisfaction. The mortgage debt, which, only a few years ago, stood at \$17,000, is now down to \$12,000, with \$3,500 lying in the bank towards the final liquidation of the liability, while the floating debt of \$2,500 has disappeared entirely. Under any circumstances this might be considered a good showing, but it must be further borne in mind that the renewal fees have been reduced 50 per cent. to those who are wise enough to pay up on time. Under these conditions the council were certainly justified in voting themselves the full statutory remuneration provided by the Act.

That financial prosperity has not been secured by parsimony is evident by the high results obtained in the examinations, and the enviable reputation of our college on all hands, of which nothing could be more eloquent than the crowded state of the classes. That position is to be maintained if wise development of resources can accomplish it, and a committee has under its consideration a scheme for appointing an assistant lecturer in pharmacy. The standard of entry qualification will in due course be raised also, the recommendation of the faculty to make it that of a third-class non-professional departmental certificate having been approved by the council.

A vexed question, which created much discussion, was that of partnership fees in branch stores. The result of the controversy is given in the appended report, but the council was sharply divided on the point.

The movement which culminated last fall in the formation of the Retail Druggists' Association was endorsed by council, and along the same lines was the cordial approval given to the proposal of Chairman Karn of the Infringement Committee to prosecute an even more vigorous policy in the future against breakers of the law. All these and many other points noted in the report indicate a healthy progressive spirit in the council, and augur well for the future of the college.

When the council was called to order by President Mackenzie, at 2.45 o'clock, on Tuesday afternoon, every member was in his place.

The minutes of the previous council meeting having been taken as read and

approved, the usual long list of communications was submitted.

Prof. Heebner, Dean of the Faculty, applied for a month's leave of absence on account of poor health, and suggested the names of Murchison and Ashton to take his place while away. The leave of absence was granted, and the matter of supplying the dean's place referred to the Committee on Education.

Letters received from the secretaries of the Industrial Exhibition and Western Fair Boards, asking that representatives be appointed to those bodies from the council, were answered by the reelection of Messrs. Mackenzie and Daniel for the Toronto fair, and the selection of Messrs. Shuff and Laurance for London's exhibition.

An application was received from Mr. Lionel Laurance for the position of instructor in optics, should it be decided to add that subject to the college curriculum. Mr. Watters asked if there was any reason for the applicant believing such a step was in contemplation. The president explained that Mr. Laurance had spoken to him upon the subject, and he had advised the formal application as a means of bringing the matter properly before the council. He would suggest that a committee be appointed to report thereon. A resolution to that effect was proposed, when Mr. Karn asked if the Pharmacy Act "allowed the council to dabble in this sort of thing." Mr. Watters declared that the council would be making a mistake in introducing the study of optics. They might just as well teach the best method of cutting glass as to teach optics to their students. He would move that the letter be filed. Upon a vote being taken, the amendment carried, and the letter was accordingly ordered to be filed.

A letter was read from a private detective asking instructions from the council upon which the writer could institute proceedings against the Vi-vi Medicine Co. for breach of the Pharmacy Act. The request was not entertained.

Mr. W. A. Karn introduced his motion, of which notice had been given at the August meeting, to amend by-law fifteen, so that the members of the council might receive the full remuneration allowed by the act, viz., \$4 per diem and five cents a mile mileage, instead of \$3 and four cents respectively as heretofore. In presenting his motion, Mr. Karn contended that members of council were very meagrely recompensed for their services, and even at the increased figures would be out of pocket. All other similar institutions paid their directors better than the O.C.P. The motion carried unanimously without further discussion.

Messrs. Watters and MacLaren moved, according to notice previously given, that in future the college medals be awarded to those students only who had received full four years' instruction in the Province of Ontario. In moving this resolution, Mr. Watters explained that this would not

affect medals offered by the faculty or outside friends. The motion carried *nem. con.*

The registrar-treasurer then presented his semi-annual report. It showed that 122 apprentices had applied for registration, and 65 renewal fees had been received.

The financial statement showed a most satisfactory condition of affairs. The receipts, amounting to \$13,549.87, included junior teaching fees, \$4,789; senior ditto, \$6,049; renewal fees, \$244; apprentices' registration fees, \$122; matriculation fees, \$218; deposit fees, \$585; examination account, \$223.38; and laboratory account, \$50.54. The disbursements had been \$5,960.94, made up in part of the following items: Interest account, \$342.08; council meeting, \$306.09; office expenses, etc., \$389.09; building account, \$105; printing announcements, \$149.60; law costs, \$135; gas, water, and coal \$124.43; salary account, \$2,850.42; supplies, \$70.01; apparatus, \$83.83; Infringement Committee's account, \$298.53; and paid off mortgage account, \$1,000. This left a credit balance for the half year of \$7,588.93, the announcement of which was received with every expression of satisfaction by the council.

The statement of assets and liabilities was as follows:

ASSETS.	
Buildings	\$33,656 82
Furniture	11,100 00
Lot	5,000 00
Outstanding fees, say.....	300 00
Supplies	320 00
Poison and liquor books.....	177 00
Lecture fees.....	205 00
Announcements.....	18 00
Cash and bank balances.....	7,588 93
	<hr/>
	\$58,365 75
LIABILITIES.	
Mortgage debt.....	\$12,000 00
Interest due	110 00
Salary account.....	320 18
Library.....	78 19
Sundry accounts.....	872 93
Examiners' fees.....	162 40
Rental of lane.....	30 00
Deposit fees.....	595 00
Balance.....	44,188 05
	<hr/>
	\$58,365 75

The auditors' report attached to the above gave the usual certificate of correctness.

The statement of the John Roberts Bequest Fund showed a balance of \$3,210.56 on the credit side.

The examiner's report gave the usual statistics of the last semi-annual examinations.

The dean's report stated that 113 students had taken the junior course, and 119 the senior course, which was in each case the largest class in the history of the college. The report stated that in the opinion of the faculty it would be advisable to raise the standard of entry qualifi-

cation to that of a third-class non-professional departmental certificate, and also again urged that something definite should be done with a view to arranging for a two years' course of instruction.

The various reports were received and sent to the several standing committees for consideration, after which the council adjourned.

Wednesday morning's session was very brief, the only business done being the adoption of the following resolution, moved by Messrs. W. A. Karn and D. H. MacLaren: "Whereas the retail druggists of the Province of Ontario have organized a society known as the Ontario Society of Retail Druggists for the purpose of mutual improvement, scientific research, and the general welfare of their business, that this council hereby express their sympathy with the same, and pledge their assistance and support in any laudable efforts they may put forth towards the formation of a Dominion Association." Very little discussion preceded the adoption of the above, but all the members were evidently in hearty support thereof, and it carried with a unanimous vote. Under the head of enquiries at the afternoon session, Mr. Turner asked if it was the intention to appoint anyone to represent the college at the convention of American druggists at Montreal in August next. The president replied that no request for such appointment had yet been received, but if one reached the council in time it would doubtless receive favorable consideration.

The report of the Committee on Legislation and By-laws was presented by Mr. Watters, and, having been received, was considered in committee of the whole. The matter of chief interest dealt upon therein was a letter from Messrs. Mitchell and McLean, who had been charged the full registration fees of \$4 each on each of their drug stores, and who now appealed against such assessment, contending that they should only be charged upon the original store in full, and that each additional store should be taxed \$4 only, and not \$4 each partner. The committee reported that, according to their interpretation of the act, the full charge on each partner for each store was correct. In the discussion which followed the reading of the clause, however, it became evident that the committee was not unanimous, and the council itself was sharply divided upon the question. Mr. Scott led the opposition to the report, and championed the cause of "the poor druggist," and Mr. Snyder supported him, urging that legal opinion should be secured upon the point. Mr. Scott moved that the clause be referred back, claiming that if the act could be construed as the committee had declared it could with equal reason be read the other way, and where there was a doubt it should be given in favor of the druggist. It would be a mistake, and hurtful to them to exact the last pound of flesh. Moreover, if they insisted on collecting they might meet with determined

resistance, and it would be very unfortunate if they became entangled in legal proceedings, in which they might come out second best.

Mr. Daniel agreed that it would be wise "to go slow." He believed the contention of one fee for each additional store was the right and just one.

President Mackenzie thought they need not anticipate trouble, but might let the report stand in the meantime, and discuss opposition when it arose. The act was a personal one, and the only logical interpretation of it was that each partner should pay for each store. Not only was this the right construction, but it was, he was satisfied, in the interests of the trade to construe it thus.

Mr. Watters desired to see the clause pass. It was consistent and desirable, though in some individual cases it might be a hardship.

Mr. Scott replied that the first \$4 was a personal tax, but the subsequent fee was a business tax.

Mr. Roberts favored the amendment in deference to the wishes of Messrs. Scott and Snyder; it would do no harm to refer the clause back to the committee for further consideration. Mr. Karn thought the council should be able and willing to decide these points for themselves, without constant reference to their solicitors. To his mind the act was perfectly clear, and the committee had properly interpreted it.

Mr. Watters ventured the opinion that the council understood the Pharmacy Act better than the lawyers, to which the members remarked "Hear, hear!"

The amendment to refer back was then adopted.

Another clause dealt with the matter of a departmental store drug department manager, who sought registration, and the registrar had declined to grant this without special authority from the council. The committee reported that they considered the case might safely be left to the registrar to deal with, but Mr. Mackenzie objected that the registrar would only refer to him, as president, for instruction, and he would prefer the council to pass upon it. This clause, too, was referred back, and the balance of the report was passed through committee without change and adopted by council.

It may be here recorded that the committee on Legislation and By-Laws presented a supplementary report on Friday morning having reference to these two clauses, and that report simply stated that the committee had nothing further to say upon either clause, and recommended the adoption of the clauses. Mr. Scott moved in amendment to strike out clause 12, having reference to the charging of full fees, and in doing so repeated his contentions above reported. Mr. Spackman supported the report. Mr. Dickey asked if it was the intention to charge up arrears. The president replied that there was no such intention in cases where fees were paid up to date, but from those who were

behind the full fees would be exacted. Messrs. Karn and Watters endorsed this view of the situation, and the amendment was then put, and lost, only Messrs. Scott, Snyder, Daniel, and Dickey voting for it. The report was then adopted.

The Executive and Finance Committee reported through Chairman MacLaren when council reassembled on Thursday morning. They recommended the payment of accounts amounting to \$1,065.30, and the depositing of \$2,500 to the mortgage redemption account in the bank. A letter from an American trade journal asking for the college advertisement was reported on unfavorably, for the reason that the capacity of the college is now overtaxed, and, consequently, no further business is required. The report advised that a circular be issued to the members of the college about April 1st, reminding them of the fifty per cent. rebate on all fees paid before May 1st. The report was adopted without change or material discussion.

At the afternoon session a letter was submitted from *The Druggist's Circular*, New York, asking for information respecting the women students and graduates of the college for incorporation in an article on women pharmacists, which is about to appear in that publication. The registrar was instructed to furnish the information sought.

Mr. C. D. Daniel presented the report of the Educational Committee. It opened with the following laudatory preamble: "Your committee have pleasure in reporting the college to be in a condition that must be very gratifying not only to council, but to the druggists at large throughout the province. The very high standard that has been maintained has resulted in elevating the character of the pharmaceutical profession, and made the druggist in reality what heretofore he has only been in name, a pharmacist. The reputation of the college is spreading, and applications are constantly being received from all parts from students anxious to attend our college. The dean and members of the faculty have done their utmost to promote the welfare of the college, and too much cannot be said of their efforts in this direction. We have now the largest class in the history of the college, and the building is being taxed to its utmost capacity."

Continuing, the report approved of the gentlemen suggested by the dean to take his place during his sick leave, and recommended the grant of \$125 to meet the expenses of the same. Also of the appointment of Dr. H. B. Anderson as temporary assistant to I. R. Fotheringham in his absence, and \$150 was voted towards the expenses attendant thereon. The proposal of the faculty to raise the standard of entry qualifications was approved, and the necessary legislation will be sought, though this cannot be done at the next session of the legislature.

An interesting point was raised by a letter from two students who had pre-

sented certificates of educational qualifications signed by a member of the faculty of Ottawa College. The act distinctly requires such certificates to be signed by a high school principal or public school inspector, or the matriculation certificate of any of the universities would of course be sufficient. As the certificate in question did not fulfil the statutory requirements, the committee felt compelled to decline them.

In supporting the report, Mr. Watters spoke strongly in favor of the appointment of an assistant lecturer or demonstrator in pharmacy, that the college, with its ever-increasing clientele, might keep in her proud position in the foremost rank. He saw no reason why the students should not receive such a training right in their own college that they would be able in due course to take positions as members of the faculty.

Mr. Mackenzie, while favorable to the proposal to raise the standard of qualification, was doubtful of the support such a move would receive through the profession. Still he thought no harm would come of allowing the report to go as it stood, and thereby eliciting an expression of opinion from the druggists generally.

The report was adopted unamended.

When the final session opened on Friday Mr. Karn presented the report of his Committee on Infringements.

After dealing with two or three matters of detail the report proceeded as follows: While the number of convictions may appear small in comparison with the expenditure, we beg to call the council's attention to the fact that through this outlay arrears of long standing have been collected, amounting in all to over \$100. No cases have been lost in court, but in some few instances we have failed in conviction on account of the great difficulty experienced in getting a magistrate to act on the case.

Your committee deem it advisable to draw the attention of the council to the fact that the work of the Infringement Committee is most difficult, and the question of expense in carrying on the same is criticized from time to time in a most unfair manner, and in view of these facts we recommend that no amount be specified for the performance of the work.

Your committee is prepared to carry out the work with due care, and to that degree of efficiency that the past meagre support of the members of the trade has given it.

We realize that such work cannot properly be done without that aid and sympathy from the druggists of the province which should characterize them with respect to the efforts of the Infringement Committee. Every case, and they are few, that have been brought to the notice of your committee has been promptly and judiciously dealt with, if there appeared any reasonable prospect of conviction.

Your committee ask the approval of the council to prosecute its work in any direction in the best interests of the col-

lege and would again most respectfully urge the members of this council to interest themselves in the matter of infringements, and promptly report all cases with full particulars to the chairman.

In presenting this report, Chairman Karn spoke warmly upon the importance of the work and the need of more generous and friendly support. He was prepared to work night and day to perfect the machinery, and during the next year he intended to see just how perfect it could be made. His enthusiastic remarks elicited warm applause, and Mr. Karn certainly had no cause to complain of the outward manifestations of approval. What the practical support of the members may amount to remains to be demonstrated. The report was adopted.

Considerable discussion occurred over clauses in the supplementary report of the Executive and Finance Committees' report, which made grants to the various departments, but finally the clauses went through as recommended.

Then came a resolution from Messrs. Daniel and Watters, appointing a committee composed of Messrs. Mackenzie, Scott, the mover and seconder, to consider and devise a scheme for the appointment of an assistant lecturer in pharmacy and to report at the next meeting of council. This was adopted without comment.

Mr. Karn moved that a special grant of \$25 be made to the janitor of the college buildings, in recognition of the scrupulous attention he gave to his work and the splendid condition of the buildings. The resolution was unanimously adopted, and the council adjourned until the second Tuesday in August unless an emergency call should issue in the interim.

Agar-agar as a Base in Glycerin Suppositories.

By FRANK G. RYAN.

Some months ago, E. Lomuller published in *Il Giornale di Farmacia* a formula directing the use of agar-agar in the preparation of glycerin suppositories.

It was claimed that this substance produced a more satisfactory product than did gelatin, and, on that account, no doubt, the proposed formula has been reprinted in a number of American and foreign journals. But as no comparison was made between the qualities of the suppositories made with a agar-agar and with sodium stearate, which is so largely used in this country, the writer decided to investigate the matter.

Agar-agar is a substance obtained from several species of algæ. It is known, also, as Japanese isinglass. (See United States Dispensatory, seventeenth edition, pages 724 and 1638).

The formula published was as follows:

Agar-agar	10 grammes.
Distilled water	200 cubic centimeters.
Glycerin	200 grammes.

Dissolve the agar-agar in the water by the aid of heat, constantly stirring, add the glycerin, and strain while hot.

Following these directions, the writer prepared a sample of suppositories from the given quantities. The suppositories, therefore, contained 50 per cent. of glycerin. They were very elastic, and had not sufficient firmness to admit of being easily introduced into the rectum. Such an article would hardly be received with much favor by the physicians of this country. A sample of suppositories containing 75 per cent. of glycerin was then made. These were firmer than those containing 50 per cent., and could be used without much difficulty; however, they did not possess the firmness of those made with sodium stearate.

An attempt was made to produce suppositories stronger than 75 per cent., but it was without good results, as the glycerin had a tendency to separate from the mass upon cooling.

In making the suppository mass it was found better to change the manipulation somewhat. The agar-agar was first soaked with cold water, and the latter expressed. After calculating the amount of water retained, sufficient to supply the proper amount was added. The glycerin was then added, and the whole heated on a water-bath until the agar-agar was dissolved, after which the solution was strained.

The following formula may be used by these directions for a suppository mass containing 75 per cent. of glycerin:

Agar-agar	5 grammes
Distilled water	45 cubic centimeters.
Glycerin	150 grammes.

On account of the smaller quantity of glycerin contained and the elasticity of the mass, I do not consider the product of this method one that could be used to replace the glycerin suppository now in common use.

The suppositories made with agar-agar have, however, these advantages: they easily leave the moulds, and are not affected to the same extent by exposure as by those containing sodium stearate.

No experiment was made to ascertain the value of the suppositories made with agar-agar as a laxative.—*American Journal of Pharmacy*.

Promptness Pays.

Promptness in business always pays. No house ever became unpopular from a custom of filling its orders with dispatch. Promptness is always noticed and favorably commented upon by the customer, who always fully realizes the importance of his own order and does not pause to think that it is one of hundreds, or perhaps thousands, received by this jobber. The purchaser wants his goods at once, as a general thing, and regards the celerity with which they are delivered as an evidence of the esteem in which he is held by the jobber. If delivery is delayed, he is apt to regard it as a slight and is sure to become dissatisfied. Promptness in business always pays.—*The Bookkeeper*.

The Science of Optics.

BY LIONEL LAURANCE,
Principal of the Optical Institute of Canada.

[Entered according to Act of Parliament of Canada, in the year 1896, by Lionel Laurance, at the Department of Agriculture.]

Elementary Anatomy of the Eye.

Besides the external muscular system there are inside the globe two internal muscular systems, viz., that of the ciliary and that of the iris.

The ciliary or accommodative muscle is attached to the sclero-corneal margin at one end, and to the choroid at the other, and lies over the ciliary process, to which it is united. It contains straight or radiate and circular or sphincter fibres. The connective tissue between the muscle proper and the sclero-corneal margin is called the ciliary ligament.

When the muscle is at rest, the tension of the straight fibres (this state of tension being the natural condition) causes the folds of the processes to be more compact, so that the suspensory ligament of the lens, which lies within these folds, and is corrugated so as to correspond to them, applies such a strain to the anterior surface of the crystalline lens, to which it is attached at one end, that this humor is kept flattened. When the straight fibres of the muscle relax their tension, and

sphincter or circular muscle contracts the pupil when the light is intense; the dilator or straight muscle dilates the pupil when the light is dull. When the two are at rest the pupil is of a medium size, which varies in different eyes. The pupil is always larger in artificial than in sunlight. During accommodation the pupil is contracted, and the centre of the iris protrudes.

The nerves of the eye are that of sensation and those of motion. The nerve of sensation, that is, of sight, is the optic nerve, which is enclosed in a sheath continuous with the sclerotic. It enters the eye through a plate called the lamina cribrosa at what is commonly called the blind spot, which is situated rather above and slightly to the nasal side of the exact centre of the back of the eye; it then branches out and becomes part of the retina. The retina receives the picture of the object looked at, and the optic nerve transmits the sensation to the brain. The optic nerves of the two eyes meet, and cross each other at the optic commissure, so that one mental picture is derived from

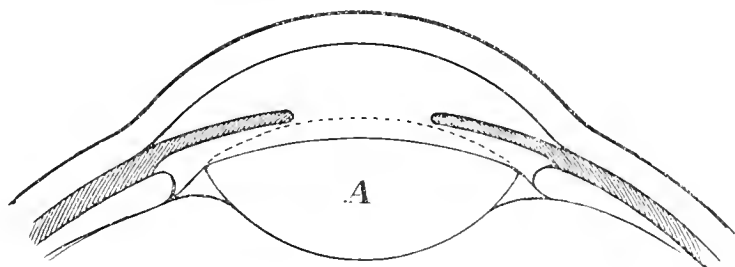


FIG. 3.

the circular fibres contract, the processes are pulled forward and somewhat straightened, so that the suspensory ligament becomes loosened and thus releases the strain on the crystalline, the front surface of which then springs forward on account of its natural elasticity, making the lens more convex, and, therefore, of more refractive power.

This combined action of the ciliary body and the crystalline lens is termed accommodation, and it is of the utmost importance that it be thoroughly understood, as it plays a most important part in the Science of Optics.

In Fig. 3 the black line of the anterior surface of A, the crystalline lens, is in the position occupied by it when the eye is at rest; the dotted line shows its position when the eye is accommodated. The posterior surface does not change its position, but the lens becomes slightly less wide during the performance of this action of accommodation.

The iris is composed of two sets of muscular fibres, as before described, the function of which is to regulate the quantity of light that enters the eye. The

two retinal images. The fibres from the right of both optic nerves pass to the right of the brain, and those from the left of each to the left of the brain after meeting at the commissure.

The nerves of motion are:

The sixth nerve, which supplies the external rectus.

The fourth nerve, which supplies the superior oblique.

The third nerve, which supplies, by its various branches and filaments, the internal rectus, the superior and inferior recti, the inferior oblique, the ciliary body, the sphincter fibres of the iris, and all the coats, humors, and tissues of the globe and orbit.

The dilator fibres of the iris are supplied by what are termed the sympathetic branches of the various nerves.

From the fifth nerve a branch, called the ophthalmic, reaches the eye, and as that nerve principally supplies the teeth, it accounts for the connection, sometimes met with, of bad teeth and painful sight.

The vascular system of the eye and its appendages consist only of the ophthalmic artery. The branches that supply

the globe are the long, short, and anterior ciliary, and the central retinal arteries. The latter enters the eyes with the optic nerve at the porus opticus, just in the centre of the blind spot, and spreads out as many filaments within the various layers of the retina. Each branch of the ophthalmic artery has its corresponding vein. The hyaloid artery, which in the embryo passes through the vitreous to the back of the crystalline, rarely exists after birth.

The front of the eye is covered by a perfectly transparent coat called the conjunctiva, which takes its origin at the margins of the lids, lines the insides of these, and then, folding over, covers the front of the sclerotic and cornea. This coat is fairly thick, but the part that covers the cornea consists of one epithelium only. It is of the highest degree of transparency, so that it does not obstruct light entering the cornea and the white coat, the sclerotic is seen plainly behind it. It serves as a protector to the eye itself, and prevents dust or insects from getting behind the globe. It secretes constantly a mucous that prevents adhesion of the lids and keeps clean the front of the eye. It is thickly intersected with blood vessels, except where it covers the cornea, and it is on this coat, the conjunctiva, that colds and external inflammations locate.

The outer appendages of the eye are:

The orbit, which is the bony socket in which the eye is situated.

The ocular sheath, the membrane lining the orbit.

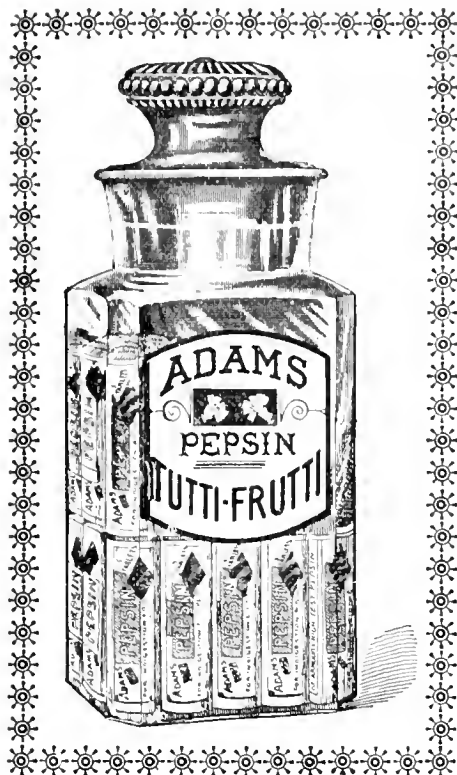
The eyelids—these are the shutters of the eyes. They help to regulate the quantity of light admitted, or they block it out entirely. They also shade the eyes, and by their closing prevent small objects from coming into contact with the globe. The angles formed by the upper and lower lids are called the outer and inner canthus. The apparent size of the eye depends on the palpebral (eyelid) opening.

The eyebrows help to shade; the bony structure projecting beyond the eyes serves as a most efficient protector from foreign bodies. The hairs, besides shading, prevent perspiration from the forehead from dropping on to the eyes.

The eyelashes serve as shades, and as protectors from dust and insects. They are curled so that on interlacing when the lids are closed they do not entangle. They are inserted into the margins of the lids.

The lachrymal or tear apparatus consist of the glands, puncta, canals, sac, and nasal duct. The lachrymal puncta are small orifices situated on the margins of the upper and lower lids, near the inner canthus; they act as syringes to draw in the moisture secreted by the lachrymal glands, and carry it by way of the canal, the sac, and the nasal duct, into the cavity of the nose. The glands are situated in the palpebral surface of the conjunctiva. When the puncta, or canals, are closed up, or when the secretion is greater than can be carried off by them, there is an over-

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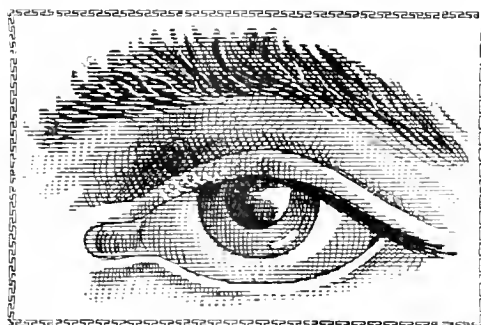
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These Perles closely resemble the sublimates and carbolic acid in their antiseptic action. A preventive of diphtheric infection.

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A perfect substitute for mouth and teeth washes and gargles. Radlauer's Antiseptic Perles take special effect where swallowing is difficult in inflammation of the throat and tonsils, catarrh of the gums, periostitis dentalis, stomatitis mercurialis, salivation, angina, and thrush.

A few of the "Perles" placed in the mouth dissolve into a strongly antiseptic fluid of agreeable taste, cleanse the mouth and mucous membrane of the pharynx, and immediately remove the fungi, germs, and putrid substance accumulating about the tonsils, thereby preventing any further injury to the teeth.

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Take 2-4 Perles, let them dissolve slowly in the mouth, and then swallow. Being packed in small and handy tins, Radlauer's Antiseptic Perles can always be carried in the pocket.

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flow of moisture in the form of tears. The small red, cone-shaped body next to the inner canthus is called the caruncula.

REFRACTION.

Light radiates from luminous bodies in every direction, and travels by undulations of inconceivable celerity. The lines of propagation of the light are called rays.

That light radiates in every direction is clear from the fact that the most minute luminous body, such as a spark, can be seen at the same time by any number of persons.

A luminous body is one that is in itself a source of light, as the sun, a candle, etc. An illuminated body is one that receives and reflects light, but as such a body also radiates light it is in effect luminous, so that any object that is visible may optically be considered a luminous body and a source of light.

A body is rendered luminous by the light emitted from every immeasurably small point on it. The rays diverging from these points travel without deviation so long as they are in the same medium, but on entering any other medium either rarer or denser than that in which they were previously they are absorbed, reflected, or refracted.

Rays of light proceeding from a luminous point and meeting some body are termed incident to it.

A body is termed transparent if it allows light to pass through it, as air, glass, the eye, etc.

A body is termed opaque if it does not allow light to pass through it, as wood, etc.

Rays incident to an opaque body are reflected or absorbed.

Rays incident to a transparent body are reflected if very oblique, but otherwise pass through the medium.

A medium is termed rare if its component particles are far apart, as air.

A medium is termed dense if its component particles are close together, as glass.

A line is called perpendicular when it is at right angles to another line, as EF is perpendicular to GH in Fig. 4.

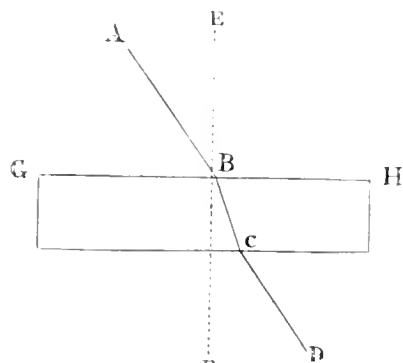


FIG. 4

A ray of light, EB , from the air incident to a sheet of glass, GH , passes through the latter in a straight line.

A ray of light, AB , from the air incident to a sheet of glass, GH , passes through the latter, but is deviated from its course at B in the direction BC , and

is again deviated at C , on emerging from the glass, in the direction CD .

This deviation of a ray of light on passing from one medium to another of different density is called refraction.

The laws of refraction are :

(1) A ray of light passing obliquely from one medium to another of different density is refracted (if the angle of incidence be not too great) at the boundary plane of the two media.

(2) If the ray passes from a rare medium, say air, into a denser medium, say glass, it is refracted towards the perpendicular to the medium at the point of contact.

(3) If the ray passes from a dense medium, such as glass, into a rarer medium, such as air, it is refracted away from the perpendicular to the medium at the point of contact.

(4) A ray perpendicular to a medium at the point of contact suffers no refraction, but passes through without deviation.

In Fig. 4 the dotted line EF is the perpendicular to the sheet of glass. The ray AB incident at B is bent, so as to take a direction more nearly approaching that of EF , when refracted by the glass, and on emerging from the denser medium it is bent away from the perpendicular in the direction CD ; this direction CD is parallel to that of AB . If the ray were incident in the direction EB , that is to say, perpendicular to or at right angles to the surface of the refracting body, it would pass through straight in the direction BF .

Then all rays of light coming from the air and incident to denser media, such as glass or the eye, are refracted towards the perpendicular, unless the angle of incidence is too great for refraction, in which case they are reflected, or unless they are perpendicular at the point of incidence, in which case they pass through without deviation.

A simple illustration of the refraction of light is obtained by putting a stick into a glass of water obliquely, the part of the stick in the water seems to be broken or bent off from the other portion.

The extent of the bending suffered by a ray passing from a rare into a dense medium varies, and is termed the index of refraction. It is greater in proportion to the density; therefore the denser the medium, the more the ray is refracted.

(To be continued.)

Montreal College of Pharmacy.

Examination questions of semi-annual examinations, held at Montreal College of Pharmacy, December 23rd, 1895 :

SENIOR MATERIA MEDICA CLASS.

Examiner : D. REED, M.D.

1. From what sources are medicines obtained? What is organic Materia Medica?

2. How may sulphuric acid be obtained? Give an account, as to appearance and strength, of the various mixtures of sulphuric acid of the B.P.

3. Give an account of the official

preparations which contain metallic mercury, strength, and posology. How may these be tested quantitatively?

4. How may bromine be obtained? Assuming sea water $\Delta 1.027$ to contain .007 per cent. of $Mg Br_2$ and no other bromide, how much would have to be evaporated to yield 1 fluid ounce of $Br \Delta 3$?

5. How may potas. chlorate be distinguished from nitrate? What precautions are to be observed in dispensing potas. chlorate with other drugs in powder?

6. Name six liquid preparations B.P. containing ammonia or salts of ammonia, with strength and specific gravity.

7. How is liq. ammonia tested for strength and purity? State the purpose of each test. In the case of a solution of ammonia stronger than B.P., on what general principle is the amount of dilution calculated?

8. How is syr. ferri iod. B.P., made? Describe the appearance of a good sample. What is the percentage strength of the official syrup?

9. Name some derivatives of starch, and show how alcohol is related to starch. What starches are official?

10. What ethers are official? What is sulphuric ether of commerce?

FIRST YEAR—MATERIA MEDICA.

Examiner : J. E. W. LECOURS.

1. Has a certified apprentice the right to put up physicians' prescriptions, and to sell poisons? If so, under what conditions?

2. Give the weight of a litre of dist. water ($4C.^{\circ}$) in grammes, and in ounces avoirdupois. How many minims in a litre?

3. (a) A body weighs 120 gr. in air, and in water .05. What is its specific gravity? (b) One hundred cm. 3 of a liquid weigh 100 grammes and 33 centigrams; what is the specific gravity of the liquid?

4. Sixty degrees above zero centigrade correspond to what degree F.? $176^{\circ} F.$ is equal to how much C.?

5. Four samples of cinchona powder contain, respectively, 2, 3, 6, and 8 per cent. of alkaloid; how may they be mixed to obtain a powder containing 5 per cent. alkaloid?

6. At what temperature, approximately, does evaporation take place with a water bath?

7. Explain the term, "destructive distillation."

8. When may a salt be described as deliquescent?

9. Distinguish between a Simple Solution and a Chemical Solution.

10. Mention three cases, in which heat is not to be used, in making solutions.

BOTANY CLASS.

Examiners : J. BEUKOSE, F.C.S., AND J. E. MORRISON, F.R.M.S.

1. Give a description of the young cell, its contents, and describe the process of cell division.

2. Enumerate the various tissues.

3. Distinguish between the above-mentioned tissues.

4. What are lenticels, where found, and what are their functions?
5. Sketch a transverse section of a phanerogamous leaf, and name the parts.
6. Define the terms prefoliation, cyme, nervation.
7. What do you understand by meristem?
8. What are the functions of the leaf?
9. Give a description of the apex of the root.
10. How would you distinguish between a subterranean stem and a root?

CHEMISTRY—SECOND YEAR.

Examiner: C. A. PFISTER.

1. Give formula of following: Disodic orthophosphate, tricalcic orthophosphate. Ammonmagnesian orthophosphate. Monopotassic orthophosphate. Calcic metaphosphate.
2. Give the elements in the silver group, with the formulas of their oxidized and hydrogenated compounds, common ones.
3. Berthollet's law, concerning the empirical reactions of acids, bases, salts, the one with the other when in solution.
4. Give equation showing the preparation of nitric acid from saltpetre.
5. Principles of volumetric analysis.
6. From a normal solution of nitrate of silver 10 cubic centimetres are used to precipitate the chlorine of the chlorides in a half litre of water. How much chlorine was contained in one litre of this water?
7. How much potassium hydrate must be dissolved so that 20 cubic centimetres of the solution will saturate 0.98 gramme of H_2SO_4 ?
8. What are the ingredients of Fehling's Liquor? What phenomenon of reduction takes place in it with glucose?
9. Distinguish between ultimate and proximate analysis.
10. Find the centesimal composition of $\text{C}_2\text{O}_4\text{H}_2$.

JUNIOR CHEMISTRY CLASS.

1. A given volume of gas is subjected to variations of temperature and pressure; what changes will occur? Give examples.
2. Suppose you have a sheet of tin plate of unequal thickness—how would you find the centre of gravity of the plate?
3. What do you understand by the terms "heat" and "temperature"?
4. Name the following bodies, and give your reasons for the names you give to them: Na, Cl, NaCl, Na_2SO_3 , Na_2SO_4 , NaOH, MnO_2 , Mn_2O_3 .
5. Of what use to the chemist is the law known as "the law of Dulong and Petit"?
6. What volume of chloroform (S.G. 1.49) is equal in weight to an imperial pint of water?
7. What do you understand by the terms element, molecule, compound, mixture?
8. A ray of light falls upon a transparent surface (e.g., a sheet of water or of glass); show by diagram (or describe) its future course.

9. Find the percentage composition of the 3rd, 5th, and 7th compounds given in question number four.

10. Given the weight of a quantity of oxygen gas, how would you find its volume? Given its volume, how would you find its weight?

The results of both of these examinations appeared in the January issue.

Pharmaceutical Association of the Province of Quebec.

The following are the examination papers given at the preliminary examinations held January 2nd, 1896:

ENGLISH LANGUAGE.

1. Write out the words dictated.
2. Write a short composition on "nouns."
3. Replace, without change of meaning, the italicized phrases in the following sentences, by clauses:
 - (a) *Having finished the chapter*, he closed the volume.
 - (b) No one doubts *his goodness*.
 - (c) He is a man of *high attainments*.
 - (d) Many a man has suffered imprisonment for *his adherence to the right*.
4. Explain clearly and briefly the difference of meaning in the following pairs of words: Cap, hat; shovel, spade; invent, discover; principal, principle.
5. Parse the italicized words in the following sentence:

I shall be pardoned for calling it by so harsh a name as madness.

FRENCH.

Translate into French:

1. Please send us cheque for the amount of your bill due 25th of last month, amounting to \$84.52. You are well aware that our accounts are payable within thirty days of date of bill, and we will thank you to give the matter your earliest attention.

2. Translate into English:

Nous avons l'honneur de vous transmettre ci-inclus facture et connaissance des marchandises qui seront expédiées aujourd'hui d'après vos intentions en sorte qu'elles vous parviendront demain. Nous sommes entièrement à votre disposition: soyez assuré que nous travaillerons toujours au mieux de vos intérêts.

GEOGRAPHY.

1. Where are the following: Mt. Brown, Cape Trafalgar, Rivière des Prairies, Lake Bras d'Or, Persian Gulf?
2. In what country is each of the following towns: Seoul, Honolulu, Jerusalem, Benares, Yokohama, Warsaw, Aix-la-Chapelle, Leipzig, Bangkok, Tananarivo?
3. In a voyage from London to Sebastopol, through what seas and straits would you pass?
4. Give the main divisions of Hindustan.
5. Name the bays of New Brunswick.

HISTORY.

1. Give one important event connected with each of the following names: Cortez, Cabot, Champlain, Laval, Amherst,

Turenne, Marlborough, Walpole, Robespierre, Lincoln.

2. What causes led to the confederation of the Canadian provinces? Give the date, and the names of the leading statesmen instrumental in effecting it.

3. State briefly some of the leading events in the career of Napoleon Bonaparte.

4. What were the causes of the American civil war?

5. In the reign of what English sovereign did each of the following come under English rule: Ireland, Wales, Scotland, Canada, Cyprus?

ARITHMETIC.

1. A locomotive burns a ton of coal while going 75 miles, and moves forward 10 yards for every revolution of the driving-wheel. How many times does the driving-wheel revolve for every pound of coal burned?

2. The sum of two numbers is 220 and their difference is 106; what is their product?

3. A three months' note for \$2,410, dated September 14th, is discounted at a bank on October 3rd, at 9 per cent. Find the proceeds.

4. If 20 men can perform a piece of work in 12 days, how many men will do another piece of work, three times as large, in one-fifth the time?

5. I sell 336 shares of C.P.R. stock when quoted at 53. What annual income shall I receive from the investment of the money in Bank of Montreal stock quoted at 212 and paying $9\frac{1}{2}$ per cent. dividend?

LATIN.

1. Decline in full, unus, duo, tres.
2. What is the present name of the country occupied in Caesar's time by the Helvetians? By the Gauls?
3. Give the nominative singular in all genders of the comparative and superlative forms of the adjectives, bonus, malus, parvus, magnus.
4. Explain the difference in meaning between the following: Pons, pontus; via, vita; animus, anima; opus, opera; hostis, hostia.
5. Give four semi-deponent verbs, and write their principal parts.
6. Translate into English: Jam per angustias et fines Sequanorum Helvetii suas copias transduxerant et in Aeduum fines pervenerant, eorum agros populabantur. Aedui, quum se suaque ab iis defendere non possent, legatos ad Caesarem mittunt rogatum auxilium. "Ita se omni tempore de Populo Romano meritis esse, ut paene in conspectu exercitus nostri, agri vastari, liberi eorum in servitutem abduci, oppida expugnari non debuerint." Eodem tempore Ambarri, necessarii et consanguinei. Aeduorum, Caesarem certiorum faciant, sese, depopulatis agris, non facile ab oppidis vim hostium prohibere: Item Allobroges, qui trans Rhodanum vicis possessiones que habebant, fuga se ad Caesarem recipiunt, et demonstrant, sibi praeter agri solum nihil esse reliqui.

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- Extra Gasoline, 5 gal. tins, 25c. per gal.
- Sewing Machine Oil, 5 gal. tins, 60c. per gal.
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- Raw Linseed Oil, in 5 gal. tins, 59c. per
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- Boiled Linseed Oil, by the barrel, 57c. per
gal.
- Boiled Linseed Oil, in 5 gal. tins, 62c. per
gal.
- Pure Neatsfoot Oil, in 5 gal. tins, 90c. per
gal.
- Olive Oil, Union Salad, 5 gal. tins, 90c.
per gal.
- Olive Oil, for table, Pure Italian, \$2.00
per gal.
- Sperm Oil, pure, in 5 gal. tins, \$2 per gal.
- Castor Oil, Calcutta, cases, 6½c. per lb.
- " " 5 gal. tins, 7c. per lb.
- " French, 5 gal. tins, 7½c. per lb.
- Sperm Candles, 36 lbs. to case, 10½c. per lb.
- Paraffine " " 11½c. per lb.
- Spirits Turpentine, pure, by the barrel, 40c.
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- Spirits Turpentine, pure, in 5 gallon tins,
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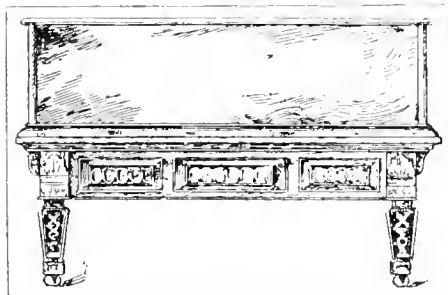
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Deafness	Sufferers	Head Noises
Deafness	Cured	Head Noises
Deafness	after all else	Head Noises
Deafness	had failed.	Head Noises
Deafness	Why	Head Noises
Deafness	remain deaf	Head Noises
Deafness	when a	Head Noises
Deafness	cure	Head Noises
Deafness	awaits you?	Head Noises
Deafness	Avoid the	Head Noises
Deafness	use of	Head Noises
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Deafness	and other	Head Noises
Deafness	injurious	Head Noises
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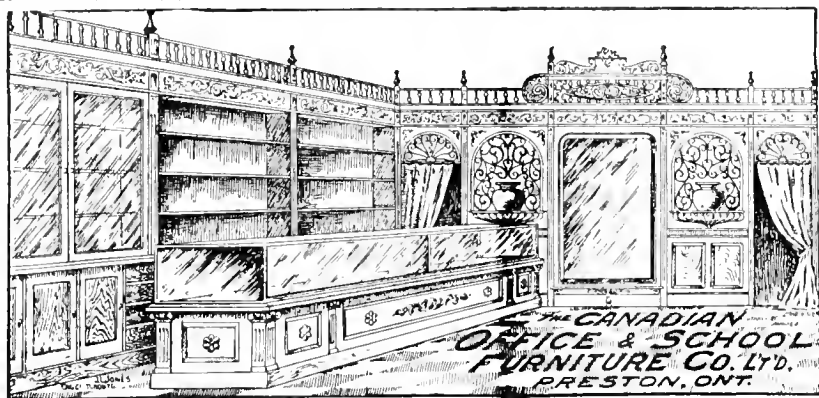
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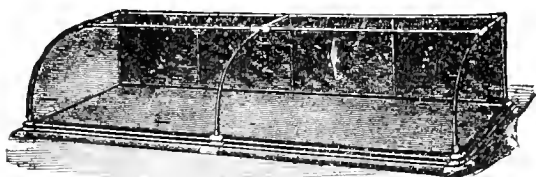
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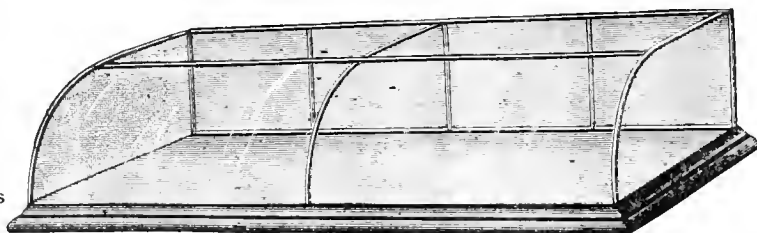
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and equal to imported wines double the
price.

J. S. HAMILTON & CO.
BRANTFORD

Sole Agents for Canada for the Pelee Island Wine Company

Attar of Roses, or Rose Oil.

Attar, or otto, is from a word signifying perfume or odor, and is obtained by simply distilling the roses with water. There are many kinds of roses known to botanists, such as *Rosa damascena*, *R. sem pervirens*, *R. moschata*, *R. gallica*, *R. centifolia*, *R. provincialis*. All of these are more or less attar yielding roses, but the special kinds for yielding the commercial product are the *R. centifolia* and *provincialis*. The kind, however, grown in Bulgaria for its attar is the *R. damascena*. This is a variety which has been for long under cultivation, as it is unknown in a wild state, and is said to have been brought into Southern Italy in the remote ages, and from thence spread northwards. The perfume of the rose was made use of by the ancients in various ways. These early methods were chiefly by distillation of rose water and an infusion of roses in olive oil, but the process of distilling the essential oil is of modern date. Langles, in his interesting book, entitled "Recherches sur la Decouverte l'Essence de Rose," gives us an account of the discovery of the essence in India. On the occasion of the marriage of the Mogul, Emperor Jehan Ghir, with Nur Jehan, A.D. 1612, a canal in the garden of the palace was filled with rose water, and the princess, observing a certain scum on the surface, caused it to be collected and found it of admirable fragrance, on which account it received the name of Atar-jehanghiri, meaning Jehan Ghir.

So far as the trade in England is concerned, it was very little known until the early years of the present century. In the year 1809 it was included for the first time in the British tariff, when we find that the duty on attar of roses was fixed at ros. per ounce. This was subjected to many changes, both high and low, until, in the year 1860, it was removed altogether.

The chief seat of the trade is in the Balkan Peninsula, at Kazanlik, a town of about 10,000 inhabitants. It is situated in the valley of the Tunja, which is remarkable for its beauty. The cultivation of the rose is confined to a small tract of country on this southern side of the mountain range. North of the Balkans, a small trade is carried on at the town of Travina. The cultivators are, for the most part, the Christian inhabitants of these districts. The produce is exceedingly variable, as the profitable cultivation of roses for the preparation of the perfume is entirely dependent on climatic conditions. In a favorable year as much as nearly 100,000 ounces have been produced, while as small a quantity as 27 ounces has been known as the total for the whole season; but an estimate, based on an average production during ten years, gives us the reliable figures of 55,520 ounces as the produce of the rose farms of the Balkans. Besides this district, extensive rose farms may be found

at Adrianople, Brussa, and Uslak. India also has a considerable area devoted to rose culture at Ghazipur, Lahore, Amritzur, and other places on the Ganges; but the produce is wholly consumed in the country, never coming into the English market. It is also produced at Medinet Fayum, southwest of Cairo; this is entirely consumed in Egypt. Tunis has some celebrity for this commodity, but none from these last named localities reach Europe, the demand in the East being almost greater than the supply. This is of very excellent quality. My first acquaintance with the perfume was through an Arab merchant at Assouan, who had for sale a few bottles of the veritable attar produced at Tunis.

In Southern France, the cultivation of the rose is one of the industries of the districts about Grasse, Cannes, and Nice. These are, to some extent, familiar to English visitors. These districts, however, produce rose water rather than attar. The rose principally cultivated is the *R. provincialis*, or what is generally known as the Cabbage Provence rose, which has a characteristic perfume, arising, it is said, from the bees transporting the pollen of the orange flowers into the petals of the rose. The farming operations are not difficult, for they are exceedingly simple and primitive. The field is first manured with the refuse matter left after the distillation of other plants; it is then ploughed, young plants of roses, procured from layers, are planted in rows, two feet from each other, each row being five feet asunder. In the second year a considerable quantity of flowers appear, but it is not until the fourth year that they are considered to be fully developed. A plantation of roses well looked after will last from six to eight years, but the land must be well drained. To cover an acre of land 7,000 rose plants are required, and this will produce, in an average season, 5,000 lbs. weight of roses, at the value of about a penny farthing per pound, or yielding about 30 lbs. per acre. These thus grown are not treated for attar, but are submitted to a process of maceration in fat or oil, about 10 kilos of roses being required to impregnate 1 kilo of fat. The chief centre of this trade is at Cannes and Grasse.

To produce the oil, the flowers, fully expanded, are gathered in April and May. The harvest lasts till the beginning of June. They are picked before sunrise, often with the calyx attached. Such as are not required for immediate distillation are spread out in cellars, but all are treated within the day on which they are plucked. An expert states that if the buds develop slowly by reason of cool, damp weather, and are not much exposed to sun heat, when about to be collected, a rich yield of attar, having a low solidifying point, is the result; whereas, should the sky be clear and the temperature high at, or shortly before, the time of gathering, the product is diminished, and is more easily congealable.

The distilling apparatus is of the simplest kind—a tinned copper still, erected on a semi circle of bricks, and heated by a wood fire; from the top passes a straight tin pipe, which traverses a tub kept filled with cold water by a spout from some rivulet, constituting the condenser. Several such simple apparatus are erected together, and about forty pounds of the flowers, with their calyces, are placed within the vessel with 60 pounds of water. The mass being well mixed, a gentle fire is lit, and when fumes begin to rise, the cap and pipe are properly fixed and luted. When the impregnated water begins to come over, the fire is lessened by degrees, and the distillation is continued until 30 pounds of water have come over, which generally takes place in about five hours. This water is then poured upon 40 pounds of fresh roses, and from thence 15 to 20 pounds of distilled water is drawn by the same process as before.

It is then poured into pans of earthenware, or of tinned metal, and left exposed to the air for one night. The attar, or essence, will be found in the morning congealed, and swimming on the top. It is then skimmed off, carefully freed from any remaining drops of water, and put into bottles for sale. This, if carefully distilled, is colorless at first, but gradually becomes of a yellow color. Its specific gravity is 0.87 at 22½° (72½ F.); its boiling point is 229° (444 F.); it solidifies at 11°—16° (52°—61° F.), or still higher; it is soluble in absolute alcohol and in acetic acid.

No drug is more subject to adulteration than attar of rose, and none is more difficult to discover. The principal ingredients employed are the oil of an Indian grass, and the essence of geranium, or geranium oil, which is imported into Turkey for this express purpose. When this is the case, the boiling point is lowered and the congealing is raised. The reliable tests are, first, temperature at which crystallization takes place; and second, the manner of crystallizing. This latter should be in light, feathery plates, filling the whole liquid.

As to the commercial value of attar when pure, it may be estimated at from 25s. to 30s. per ounce. The product is of no medicinal importance, only as a scent for ointments. It is much used in perfumery, and very largely in the scenting of snuff.

In these days of extensive travel, few visitors to Eastern Europe, especially to Egypt, return home without purchasing one or more of the long, angular vials to be found in such quantities in all Eastern bazaars, said to contain the true attar of roses. These small receptacles, for which a fabulous amount is often asked and paid, contain about 15 drops of oil; they are covered over with a bladder and a piece of silk; but, alas! they only contain geranium oil, the bladder being smeared with a touch of attar. *Experientia docet.*—G. D., in *The British and Colonial Druggist*.

Medicine Two Centuries Ago.

We have among us at all times worshippers of the past, of the good old times long ago, who desire to see the wheel of time set back; some of them are more or less in earnest, usually, however, only in regard to some particular phase of life which has caught their fancy, but probably they never consider what a reversion to the good times of, say, two hundred years ago, would mean in the way of doctors' draughts and domestic remedies; for certainly some of the medical prescriptions and recipes of our ancestors, if extremely curious and well adapted to make the dispensing chemist of our times sit up, are anything but nice reading for a patient. Snakes, snails, toads, and frogs seem to have been held in particular esteem; calcined and powdered, stewed, mashed, or otherwise treated, they enter into the composition of a great number of concoctions, all more or less unpleasant to one's ideas. John Bate, in his "Mysteries of Nature and Art," 1635, in a series of remedies for bleeding at the nose recommends the toad, alive or dead. "Also, if you tie a live toad in a net and hang it about the patient's necke he will be in a sodaine feare, and so the blood will leave his former current, and have recourse into the heart. Or else a dried toade held in one's hand, or hanged about one's necke." Elsewhere he tells us for the same purpose to take a black toad in May. Snails come in for the cure of rupture. "Take nine red snails, lay them between two tyles of clay, so that they creep not nor slide away, and bake them in the hot embers, or in an oven, till they may be powdered: then take the powder of one of the snails, and put it in white wine, and let the patient drink it in the morning at his rising, and fast two hours after, and drink these nine snails in eightene daies, that is, every other day one. And if the sicknesse be so old that it will not heal in eightene daies, begin again, and drink other nine snails, and he shall be whole; this considered that he weare a trusse in the meantime, according to the manner of the rupture." Begin again and "drink other nine snails" is a very fine touch. Next we have, "For the biting of a mad dogge." After bathing the wound in brine, "then take two live pigeons, cut them, throw the middle, and lay them hot to his hand, if hee be bitten in the armes. If in his legges, to the sole of his feet." A water, prepared from calcined flints, for making "steele as soft as lead," is of double value, since it is "likewise a soveraigne water to help the gout, being anoynted where the griefe is, for it giveth ease very speedily."

In "The Ladies' Cabinet," by the Lord Ruthven, 1655, we are told that "oyl of worms asswages paine, and is good for bruises and paines in the joynts." It is prepared by boiling earth worms in white wine and sweet oil. For another purpose, the foot of a hare is burned to powder and drunk with red wine and cin-

namon. The milk of a red cow is an essential in another compound, and a remedy is provided "to heal children of the lunatick disease caused by reason of a worm with two heads, which breedeth in their bodies, which, coming to the heart, causeth such a passion in the child that oftentimes it kills them."

Dr. John French, in "The Art of Distillation," 1664, gives his readers a collection of remedies, some of them almost universal in their application, such as the "elixir of mummie," prepared thus: "Take of mummie (viz., of man's flesh hardened), cut small four ounces, spirit of wine terebinthinated ten ounces, put them into a glazed vessel (three-parts of four being empty), which set in a mixer to digest for the space of a month; then take it out and express it, let the expression be circulated a month, then let it run through 'manica Hippocratis'; then evaporate the spirit, till that which remains in the bottom be like an oyl, which is the true elixir of mummie. This elixir is a wonderful preservative against all infections, also very balsamical."

"A mummiall quintessence," which produces wonderful effects in preserving and restoring health, is also described in Edwardo Bolnest's "Aurora Chymica," 1672. For its preparation you have to take three or four pounds of the flesh of a sound young man dying a violent death about the middle of August. Why the violent death, or why the particular time specified, is not clear. However, to return to Dr. French, the oil of snakes and adders is prepared thus: "Take snakes or adders, when they are fat, which will be in June or July; cut off their heads, and take off their skins, and unbowl them, and put them into a glass-gourd, and pour on so much of the pure spirit of wine, well rectified, that it may cover them four or five fingers' breadth; stop this glass well, and set it in Balneo till all their substance be turned into an oyl, which keep well stopt for your use. This oyl doth wonderful cures in recovering hearing in those that be deaf, if a few drops thereof be put warm into the ears. A nobleman of Germany, that was famous for curing the deaf, used this as his chiefest medicine, by which they say he cured those that were born deaf." A similar preparation: "The quintessence of snakes, adders, or vipers, is stated to be of extraordinary virtue for purifying the blood, flesh, and skin, for the falling sickness, strengthens the brain, sight, and hearing, preserveth from gray hairs, reneweth youth, cureth the gout and consumption, is very good in and against pestilential infections." "Viper wine" has the same virtues as the preceding, and cures leprosy as well.

"A pectoral water" introduces some new elements; the liver of a calf and the lungs of a fox are added to a handful of each of five specified herbs, to say nothing of about a dozen other ingredients which are infused in rich old wine, and then distilled. Another preparation, a

most infallible medicine against the falling sickness, is "the essence of man's brains," prepared from "the brains of a young man that hath dyed a violent death." No doubt that commodity was more easily obtainable two centuries ago than it would be at the present day. "Aqua-magnanimitis" is a preparation of ants ("the biggest that have a sowrish smell are the best"), digested in spirits of wine, of which one author says: "This spirit is of excellent use to stir up the animal spirit; in so much that John Casmire Palsgrave, of the Rhene and Seyfric of Collen, general against the Turks, did always drink of it when they went to fight, to increase magnanimity and courage, which it did even to admiration." Even more efficacious should be the next preparation, consisting, as it does, of ants' eggs, millipedes, woodlice, and bees, all digested in spirits of wine, and impregnated with soot. "Oyl of bricks" is another valuable compound; "it helpeth all cold distempers whatsoever, falling sickness, palsie, vertigo, lethargy, forgetfulness, gout, toothache, and a large number of other ills." Oh! for oyl of bricks. The "oyl of the philosophers," or the "blessed oyl," appears to be much the same thing.

Other preparations are the essence of swallows, essence of crabs, oil of egges, oil of bones, oil of crabs' eyes, water of spawn of frogs, quintessence of centipedes (good for purifying the blood), and the quintessence or arcanum of toads, "a noble remedy" against all sorts of poisons, cancer, etc.; for its preparation we are directed to "get in the month of June and July a great quantity of overgrown old toads." The quintessence of man's blood, made "of the blood of a young, sound man, of which there is enough to be got at spring and fall, from such as let blood for recreation," has some very wonderful properties, one of which is that it puts off age very long. "Oyl of the blood of the stag" is not so all-embracing in its virtues, but it is good for the gout. "Spirit of man's hair" is very unpleasant to take, and therefore is rarely used inwardly. This appears not unlikely, as another writer tells us of a water and oyl made out of hair which is used in Germany for sprinkling upon fences and hedges "to keep wild and hurtful cattle from coming to do harm in any place; for such is the stink of this liquor that it doth affright them from coming to any place near it." It must not be thought that we have left all these outlandish remedies far behind us. The hair, preferably black, of healthy females of good digestion, was the essential feature of a medicine patented as an invention in England within the last decade or so, and snails are still used as a household remedy in country districts.—*Indian Lancet*.

DR. WHELFLEY has epigrammatically remarked that the pharmacist must remember that he is a tradesman in business as well as a member of a profession.

WATSON'S COUGH DROPS = =

Are warranted to give **Immediate Relief**
to those suffering from **Cold, Hoarse-
ness, Sore Throat, etc.**

R. & T. W. STAMPED ON EACH DROP

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**ANTISEPTIC, NON-TOXIC, FOR EXTERNAL
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• Borine possesses a fragrant odor and a very agreeable pungent taste. It mixes with water in all proportions, and is compatible with most of the preparations of the pharmacopœia. It does

not injure or stain the most delicate fabric, and is therefore useful as a general disinfectant.

Borine is highly recommended as a Mouth Wash, as a Gargle, Spray or Lotion in inflammations of the throat, nose and mucous membranes; for Inhalation in croup, diphtheria and whooping cough; as a soothing and antiseptic application to wounds, burns, etc., and internally as a sedative, antifermentative and carminative in digestive troubles and in intestinal disorders.

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covered up by added flavors. QUEEN CASTOR OIL possesses the same medicinal properties as the ordinary Castor Oil, with the advantages that it is pleasant both in taste and odor, does not become rancid, and is devoid of all griping action.

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THE NEWEST AND MOST EFFICIENT SOPORIFIC REMEDY

Taken in doses of 32 grains, or half a teaspoonful, in milk, ale, or cognac, produces in half an hour a quiet refreshing sleep, lasting from six to eight hours, with no unpleasant after effects. The effects of SOMNAL are more pleasant than those of Chloral Hydrate and Morphia. Experiments made in the Town Hospitals, Moabit and Friedrichshain, Königliche Charité and Königliche Universitäts Poliklinik, Berlin, have shown that SOMNAL does not accelerate the pulse and does not upset the stomach. SOMNAL is especially recommended for Nervous Insomnia, Neurasthenia, Spinal Complaints, Infectious Diseases, Paralysis, Melancholia, Hysteria, Morphinismus, and Diabetes. The low price of SOMNAL enables its use in the poor and workmen's practice and in hospitals.

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ANTINERVIN replaces and surpasses Antipyrin, has no hurtful secondary effects, and is cheaper. Taken in doses of 8 grains four times a day, it is an excellent remedy for Feverish, Catarrhal, and Rheumatic Pains.

ANTINERVIN is of especial service in cases of Influenza, Neuralgia, Asthma, Tuberclose, Yellow Fever, Malaria, Migraine, Gout, Rheumatism in the Joints, Diptheritis, and other typical Fevers

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Wine of the Extract of Cod LiverSold by all first-class
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This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis, and all diseases of the Chest.

Wine of the Extract of Cod Liver with CreosoteGeneral Depot:—PARIS,
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The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

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Formulary.

SYRUP OF WILD CHERRY AND HOREHOUND.

	Drams.
Wild cherry bark, in No. 20 powder	4
Horehound	1
Glycerin	1 fl.
Alcohol	1 fl.
Sugar	12
Water, q.s. ad.	16 fl.

Mix the glycerin and alcohol with eight ounces of water; moisten the wild cherry and horehound with two ounces of this mixture, pack in a cylindrical percolator, tightly covered; after twenty-four hours' maceration proceed with percolation, using the remainder of the menstruum, and afterwards sufficient water to make ten fluid ounces of percolate; in this dissolve the sugar by agitation, without heat, and strain.—*Ex.*

LIQUEUR CARMINATIVE.

	Parts.
Melissa, herb.	50
Lemon peel, fresh	5
Orange peel, sweet, fresh	5
Coriander	3
Cardamom	3
Cassia	3
Nutmeg	3
Angelica root	2
Alcohol, 90	500
Water	400

Mix and let stand for twelve hours. Remove to a distilling apparatus and distil off 700 parts. Dissolve 100 parts of sugar in 200 parts of water and add to the distillate. Color red.—*National Druggist.*

PILE SUPPOSITORIES.

No. 1—Iodolorm	gr. 30
Extract belladonna	gr. 3
Morphine sulphate	gr. 1½
Cacao butter	gr. 180

Mix, and make twelve suppositories.

No. 2—Extract witch hazel, powd.	gr. 60
Tannin	gr. 12
Opium	gr. 4
Cacao butter	gr. 180

Mix, and make twelve suppositories.

Either of the above can be easily and profitably made and yield excellent remedies.—*Western Druggist.*

AROMATIC SYRUP OF LIQUORICE.

	Grammes.
Cinnamon (Ceylon)	20.00
Ginger (Cochin)	12.00
Cloves	8.00
Nutmeg	8.00
Ext. liquorice, purified	50.00
Sugar	750.00
Alcohol (S.V.R.) and water, each a sufficient quantity.	

Reduce the cinnamon, ginger, cloves, and nutmeg to a No. 40 powder, moisten with 15 c.c. of alcohol, macerate for twenty-four hours in a covered vessel, then pack into a cylindrical percolator and gradually pour alcohol upon it until 100 c.c. of percolate is obtained; mix this with the sugar in a mortar and set aside in a moderately warm place until the alcohol has evaporated. Add water until 500 c.c. of percolate is obtained; dissolve the extract of liquorice in the

percolate with the aid of gentle heat, add the aromatized sugar, let the whole come to a boil, strain and add enough water through strainer to make 1,000 c.c. *H. F. Hassebrock, at meeting of Missouri Association.*

COLORS POLISH FOR LEATHER.

A German patent for colored polishes for boots, harness, etc., specifies the following mixture: White bone ash, 46 parts; treacle or glucose, 92 parts; oil or grease, 9 parts; concentrated sulphuric acid, 12 parts; concentrated hydrochloric acid, 10 parts; yellow mineral color, 2 to 5 parts; azo color, ½ part. The bone ash is finely ground and mixed with the treacle or glucose. The grease—which may be animal, vegetable, or mineral—is then added, and finally the acid and then the color. This polish is applied with a brush as usual, and is said to give a peculiar brilliancy to yellow leathers without alteration of their shade.—*Oils, Colors, and Drysalteries.*

LANOLINE POMADE.

White wax	2 oz.
Spermace	2 oz.
Lanoline	5½ oz.
Jasmine pomade	½ oz.
Perfume to taste.	

—*Chemist and Druggist.*

CLEANING FLUID.

Oil of turpentine	2,650 parts.
Ammonia water, stronger	1,900 parts.
Methylic alcohol	2,500 parts.
Ether, sulphuric	225 parts.
Ether, acetic	225 parts.
Water to make	10,000 parts.

—*National Druggist.*

LEATHER PRESERVATIVES.

For use during winter the following will be found excellent applications: Yellow wax, 1 oz.; petroleum jelly, 4 oz. Melt together. *Kid-cream*.—Melt together 3 oz. of Japan wax and 15 oz. of linseed oil, and add 4 scr. of levigated lampblack. Perfume with a few drops of oil of mirbane. *Harness-paste*.—Melt together 10 oz. of tallow and 5 oz. of resin, then add 10 oz. of soft water and 7 oz. of common soap; continue the beat, stirring assiduously until a uniform paste results.—*Chemist and Druggist.*

CHILBLAIN POMADE.

The *Petit Moniteur de le Pharmacie* recommends the following:

Menthol	1 part.
Salol	2 parts.
Olive oil	2 parts.
Ilanolin	60 parts.

Mix and make an ointment.

Pain is subdued at once on application. The skin becomes soft under regular use of the pomade, and loses its tendency to crack and ulcerate.

This is an excellent formula, and would make a good seller.—*National Druggist.*

WHITE VARNISH.

Colorless varnish for use on fine labels or other prints, as well as for white wood

and other spotless articles, is made as follows: Dissolve two and a half ounces of bleached shellac in one pint of rectified alcohol; to this add five ounces of animal bone black, which should first be heated, and then boil the mixture about five minutes. Filter a small quantity of this through filtering paper, and if not perfectly colorless, add more bone black and boil again. When this has been done, run the mixture through silk and through filtering paper. When cool it is ready for use. It should be applied with care and uniformity.

IMPROVED ELIXIR AROMATIC.

The National Formulary, as well as the U.S. Pharmacopeia, gives formulae for elixir aromatic in which it is necessary to have a preparation in stock that is never called for, except in making elixir aromatic, as suggested in the question. It no doubt would be a saving of time and trouble, and obviate the necessity of having unnecessary bottles on our shelves, by making the elixir direct from the oils. Through experience I have made the preparation according to the following formula, and have had satisfactory results:

Oil orange	30 drops
Oil lemon	8 drops
Oil coriander	2 drops
Oil anise	1 drop
Syrup	375 c.cm.
Alcohol	250 c.cm.
Water enough to make	1,000 c.cm.
Precipitated phosps. of calcium	q.s.
Mix and follow directions according to U.S. Pharmacopeia.	

A formula that has also given satisfaction is as follows:

Oil orange	10 drops
Oil almond, bitter	1 drop
Oil clove	1 drop
Oil cinnamon	1 drop
Alcohol $\frac{1}{2}$ a.a.	360 c.cm.
Syrup	
Talcum	15 grams
Water, enough to make	1,000 c.cm.

Mix the oils with 15 grams of talcum, add the alcohol and syrup, mix thoroughly, and, finally, add the water. Let it stand in a closed vessel or bottle for 24 hours and filter through paper.

This formula gives a preparation that can be colored with a sufficient quantity of tincture cudbear or red aniline. Solution to be used when curacao is ordered in prescription and the genuine or imported article is not specified. It is a good imitation of the imported liquor.

A BLEACHING FLUID.—“Ozone” is the name given to a new bleaching fluid discovered by a German chemist. It consists of a solution of 125 parts of resin in 200 parts of oil of turpentine, to which is added 90 parts of hydrogen peroxide, and a solution of potassium hydrate in 40 parts of water. This mixture first takes the form of a jelly, but in a few days changes into a thin fluid, which requires some weeks for its completion.—*Mag. Phar.*

Photographic Notes

A Revolution in Photography.

According to the Vienna correspondent of the *Standard*, the *Presse* for January 7 gives further details of the remarkable scientific discovery made by Professor Rontgen, of Wurzburg University. "The professor came upon his discovery quite by accident. He was experimenting in the dark with a Crookes' vacuum tube, which was covered with some sort of cloth. A strong electric current was passed through it, while close by there was some prepared photographic paper, but no camera. On this paper the professor noticed next day several lines for which he could not account. By restoring exactly the circumstances as they existed on the preceding day, he was able to ascertain the real origin of these mysterious marks. He continued his experiments with the Crookes' tube and photographic paper, and found, in the first place, that not only may a camera be dispensed with, but that the image from the light rays of the Crookes' tubes is not obtained if it has to pass through lenses.

"By the use of these rays photographing is immensely simplified. There is the vacuum tube; in front of it is the object to be photographed, and immediately behind it is the prepared paper in a wooden case, wood being transparent to these rays. An ordinary plate, whether wet or dry, must not be exposed to daylight until after fixing, because the ordinary light rays would act upon the silver or other compounds. But in the case of the Crookes' rays this difficulty does not exist, because the sensitised paper can be left in the wooden case, and, therefore, in complete darkness.

"That, however, is not all. The professor found that these peculiar rays are not refracted, which is the reason for the inapplicability of lenses or the camera; and he further found by experimenting that they develop no heat, and that they are without any influence upon the most sensitive magnetic instruments. He also discovered that these rays possess this extraordinary peculiarity that they do not travel in undulating waves, but by moving forward in a direct line. The theoretical interest attaching to this last peculiarity, if it be confirmed, is enormous. The first photograph of a human hand, showing only the bones and the rings on the fingers, was obtained by the professor placing his own hand on the wooden case with the prepared paper, and allowing the rays from the Crookes' tube to fall directly upon it.

"There are already nine different Crookes' tube photographs in Vienna, the majority in the keeping of Professor R. Boltzmann, of Vienna University. This eminent professor of physics declares that the discovery of this "new light," as he terms it, will form an epoch in the history of science. He says that there are still certain obscure points that require clear-

ing up; but, on the whole, he is not skeptical. The repetition of the experiment, however, has not yet been successful in Vienna; but this, it is said, is because the Crookes' tubes at the disposal of the experimenters here were not sufficiently large."

A correspondent of the *Standard* observes, in confirmation of Professor Rontgen's discovery, that he and a friend "have obtained distinct proof that the radiations in question do pass easily through various substances that are quite opaque to ordinary light, and do produce strong impressions upon ordinary photographic plates entirely incased in light-proof material. Indeed, all substances that we have so far experimented on in this laboratory appear to be transparent to these radiations, even sheets of ebonite, carbon, vulcanized fibre, copper, aluminium, and iron, though there is considerable variation in degree."

A later report states that Professor Klupathy, of the physical institute at the University of Pesth, has repeated, with very satisfactory results, the experiments made by Professor Rontgen. He was able to obtain pictures on a photographic dry plate enclosed in a wooden case, and has likewise photographed a larger part of the human body than the hand, obtaining pictures of the bones only, without their fleshy covering.

"Professor Rontgen has sent rays of the new chemical light through aluminium plates of one and a half centimetre in thickness, and they went as clean through as if the substance had been wood. The same was the case with two sets of books, including many volumes. These he placed between the Crookes' tube and an ordinary compass; behind them was the wooden case with the dry plate, and the result was as complete a photograph of the compass as possible. It is, perhaps, not strictly a photograph in the ordinary sense, because no lenses are used; it is not a negative, but a positive plate that is obtained. Hence some people are inclined to call such a figure simply the shade of the object. It has not, however, up to the present, been found possible to get such a shade fixed."—*Pharmaceutical Journal*.

Snap Shots and the Hand Camera

By GORDON PARKER, Woburn, Mass.

All dust-covered and neglected, the implements used in early efforts mark the course of advancement in our chosen lines of work and pleasure. The advanced amateur has forgotten the hand camera of his first steps in photography, or only remembers it to remark, "I did that once," as he meets the snap-shotting fiend everywhere wandering up and down the land.

But great strides have been taken in the manufacture of hand cameras and all the accessories, and the work that is possible, and the results that are obtained by the successful snap-shotter of to-day, are

alike a credit to him and his instrument, and a wonder to all.

A hand camera should be a part of every amateur's outfit. Such an instrument could have been used to advantage the day of the Knights Templar parade in Boston, where a large tripod camera was useless and heavy baggage.

The qualifications necessary in the successful use of the camera are a quick eye, judgment of distance, some idea of composition, courage, and a steady nerve. Possessed of these, you can go anywhere it is right to go and come away with good proof of your trip.

The film, a bugbear to many, is really the meat of the hand camera. You can do nothing with plates that cannot be duplicated with the film. You can carry more of them, make the changes quicker, and, consequently, get more exposures. The small universal focus, film, and plate-carrying cameras of recent manufacture answer all requirements, and have many advantages.

We dress our windows to attract attention, and while our wares are capable of arrangements pleasing to the eye, the novelty wears away with repetition. It must have been observed how quickly pictures catch the eye and stop the feet. People are interested, study the display, smile, stop again as they return your way, and ask their friends if they have seen the pictures in your window. It is something your neighbor cannot exactly duplicate. The negatives, the prints, the display are wholly your own, and a little intelligent talk, when the customer comes in, about the pictures, and the making of pictures, interests and pleases him.

Now, the hand camera and the snap-shot make this nearer and easier to you than the tripod and the larger box, because a larger variety can be shown. Some of the pictures can only be obtained that way: you come nearer to the great majority of picture takers. You can send your clerk, your family, your out-of-work friend off for what will interest them in obtaining and profit you in having: it will make trade for you in photographic material, and it comes nearest to the desired result of all window display by attracting favorable attention to your store and your goods.—*Spatula*.

Cassia Oil for Clearing Microscopical Objects.

Dr. H. G. Piffard, of New York, finds pure oil of cassia best suited of all oils as a mounting medium and clearing oil, owing to its high refractive index (1.593). Bacilli examined in cassia exhibit an unrivalled brilliancy and sharpness of contour; and the minutest details, such as spores, flagella, etc., are shown with a distinctness impossible in cedar oil. The oil of cassia, like the oil of cloves, tends to abstract the color from bacilli stained with some of the aniline dyes, but not with sufficient rapidity to interfere with the diagnostic examination.

THE ALE AND STOUT

OF

JOHN LABATT

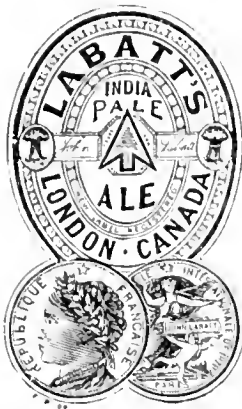
LONDON

ARE PURE AND WHOLESOME

 Recommended by testimonials
of Four Eminent Chemists.

**TEN GOLD, SILVER and
BRONZE MEDALS.**
**HIGHEST AWARDS on this
Continent wherever exhibited.**

 MONTREAL—P. L. N. Beaudry, 127 De-
Lormier Avenue.

 TORONTO—J. Good & Co., Yonge Street.
ST. JOHN, N.B.—F. Smith, 24 Water Street


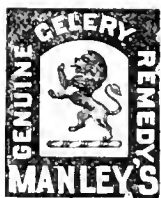
M'COLLOM'S

Rheumatic Repellant

By intrinsic merit has obtained extensive sale in Canada and the United States as the most reliable cure known for rheumatism, as it not only relieves, but also thoroughly removes the cause from the system. It is neatly put up in \$1.00 bottles, taken with good effect on the liver, kidneys and blood, and has been in successful use over twenty years.

Many druggists to whom we are under great obligation express much satisfaction in handling this reliable remedy.

Sold by Wholesale Firms of Montreal, Toronto, Hamilton, London, Winnipeg, and by Retail Druggists generally.


"MANLEY'S"
CELERY NERVE COMPOUND

WITH

Beef, Iron, and Wine

A scientific combination of Celery, Beef, Iron, and Wine, Tonics, and Pure Glycerine, instead of alcohol.

UNEQUALLED

AS A HEALTH BUILDER and HEALTH RESTORER

Has given the FULLEST SATISFACTION to persons who have taken it.

It is put up in a 16-oz. bottle, contained in an attractive Blue and White carton

TERMS.

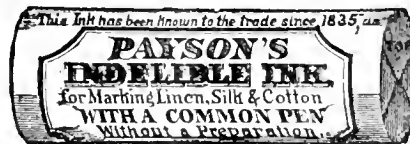
30 days (10% off) or	\$7.20 per doz.
SPOT CASH (on delivery) when shipped direct only	\$6.48 "
For orders of 3 to 6 dozen	\$6.00 "
30 days (\$7.20) 10% and 5% off, or	\$6.16 "
Gross lots \$63.50 off 30 days	

SELLS FOR \$1 A BOTTLE.

Orders respectfully solicited.

THE LION MEDICINE CO.,
15 Queen St. East, TORONTO.

THE OLDEST - THE BEST



Trade supplied by all leading Drug Houses in the Dominion.



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Pure and Reliable Vaccine Matter always on hand. Orders by mail or otherwise promptly filled.

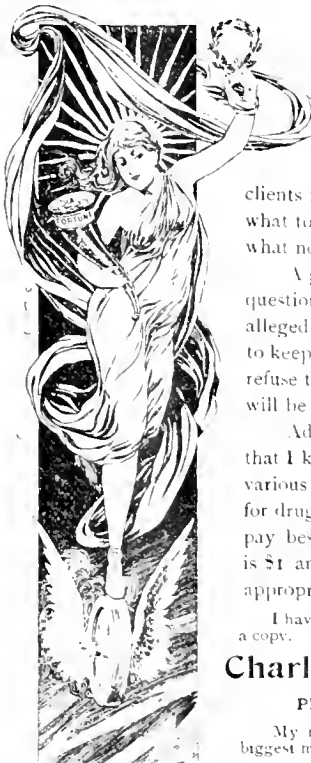
10 Ivory Points, \$1; 5 Ivory Points, 65 cents; single Points, 20 cents. Discount to the trade.

Address all orders—VACCINE FARM,

A. STEWART, M.D.

Palmerston, Ont.

I can save money



for any advertiser in Canada. I can make his advertising more profitable. In some cases I can make it very much more profitable. In others only a little more, but in every case I honestly believe that I can make money for my client. I am an advertisement writer, but I am more than that. I not only help my clients in the preparation of their advertisements, but I tell them what to do with the ads. after they are prepared. I also tell them what not to do with them.

A great deal of money is wasted in advertising. There's no question about that. Every day business men are using money for alleged advertising that does no good at all. It is part of my work to keep my clients out of mistakes. If every one of my clients will refuse to enter an advertising contract without consulting me, he will be ahead a great deal of money at the end of the year.

Advertising is my business and my profession. It is a thing that I know best in all the world. I have had experience in all its various phases. I have written a great many ads. and booklets for druggists. I am thoroughly familiar with the kinds of ads. that pay best in that business. My regular price for such retail work is \$1 an ad. without an illustration, or \$1.50 each, including an appropriate illustration.

I have a handsome 44-page book that tells all about my business. Send for a copy. It is free.

Charles Austin Bates, 1411, 1412, 1413, 1414, 1415
Vanderbilt Building, New York

Plans, Advice, Writing, and Illustrating for Advertisers.

My new 700-page book, called "Good Advertising," costs \$5. It is the biggest money's worth ever contained in any book on advertising.

BOOKS FOR DRUGGISTS

WRITTEN BY EXPERTS

Manual of Formulæ.

\$1.50 POST FREE.

MORE than 1,000 reliable formulæ connected with every department of modern pharmacy, carefully arranged for ready reference. Indispensable to chemists.

Practical Dentistry.

50c. POST FREE.

THE main features of the surgical and mechanical branches of the Dentist's Art are practically dealt with. Written specially for Chemists by a Dental Surgeon. Pharmacists practising, or desiring to practise, dentistry will find it specially suitable to their requirements.

Minor Ailments.

\$1.50 POST FREE.

DIRECTIONS for treatment of the slight affections, accidents, etc., daily brought under the notice of the "counter prescriber." The most modern and effective methods are described, and the most recent of proved remedies pointed out. Produced under the direction of an experienced medical practitioner.

Diseases of Dogs and Cats.

75c. POST FREE.

THE work has been specially written for Chemists by an experienced Veterinary Surgeon. It deals practically with the treatment of all ailments by the most modern methods.

Practical Dispensing.

ILLUSTRATED, 50c. POST FREE.

CONCISE but lucid treatise on the subject specially designed for students. Preparation of mixtures, pills, emulsions, suppositories, also plaster spreading and pill coating, etc., carefully described and illustrated. Detailed directions for preparation of poultices, and of nutritive diet for invalids.

Practical Perfumery.

50c. POST FREE.

DIRECTIONS for the preparation of perfumes and toilet articles, with detailed formulæ and useful advice regarding labels, bottles, and putting up. Special information also included relative to new and rare drugs and compounds now used in the manufacture of perfumery.

A Synopsis of the British Pharmacopœia Preparations.

BY CHAS. F. HEEBNER, PH.G., PH.M.B.

\$1.00 INTERLEAVED.

THE object of this work is to furnish, in a most convenient manner, a method for the study of the official preparations as to their Latin and English titles and synonyms, their composition, methods of preparation, strength, doses, etc., arranged in classes.

This book will be found an invaluable aid to apprentices and students in pharmacy or medicine.

Manual of Pharmacy and Pharmaceutical Chemistry.

BY CHAS. F. HEEBNER, PH.G., PH.M.B.,

Dean of the Ontario College of Pharmacy, and formerly Instructor in Theory and Practice of Pharmacy in the New York College of Pharmacy.

Cloth-Bound, 12mo., 252 pp., \$2.00

THE study of Pharmacy simplified by a systematic and practical arrangement of topics, and the elimination of unnecessary matter.

The first edition has been thoroughly revised and freed from typographical errors; in addition thereto, the third edition contains a treatise on Uranalysis, chemical and microscopical (fully illustrated), and a full index.

Advertising.

Practical Hints on Advertising.

Copyrighted 1928, by CHARLES AUSTIN BATES.

I do not believe in scheme advertising of any kind. In some cases it may pay, but they are few and far between. The kind of advertising that can always be depended on is newspaper advertising. It always does what it is intended to do if it is used properly. If it ever fails, it is not the fault of the medium, but the fault of the advertiser, or the way he advertises. The right sort of advertisements in the newspapers go right into the family circle, exactly where the dealer wishes his goods to go. For this reason, if for no other, it is better than any other possible method for bringing business.

I have had quite a good deal of experience in managing different outside schemes for advertising a business, and I have been able to figure up the results rather accurately. I have never yet seen an undertaking of this sort bring back enough money to pay for itself, either directly or indirectly.

The advertisement that pays best is the plain, honest, forceful talk, written just as if the writer was talking to the reader face to face—a statement of facts. There is nothing in the world so interesting as facts, especially the facts of business. They should be written about entertainingly. People like to know how and where things are made. Not a technical description, but a hint here and there. For instance: "These goods were designed and woven in France, the cotton came from Alabama and the silk from China. Twice across the Atlantic, once across Asia and Europe, and here is the finished fabric for 75c. a yard." It creates an interest that a mere bald statement would never get. Knowledge, thought, and truthfulness will generally produce a good advertisement, and a good advertisement in a good paper will always bring good results. The selection of the medium is the first and most important point. The writing comes after. Even a bad ad. in a good paper will bring some business. A good ad. in a poor paper is sheer waste.

Advertising, properly considered, and in its strongest sense, is merely telling people what and where and why—particularly why—they should buy some particular thing. Advertising isn't good unless it accomplishes this, and convinces a greater or less number of people that the advertiser and the thing advertised are just exactly what they have been looking for.

A great many merchants cut down their advertising in the summer. Some even stop it altogether.

In everyday life, when a thing is hard to do, it only calls forth greater effort.

If the laborer can't move the stone, he gets a crowbar and a block of wood. He makes a lever and the stone moves. If the crowbar isn't long enough, he gets something longer. He doesn't give up because the stone has got to be moved.

Same way in business. Trade is a stone. The funny thing is that the lighter it gets, the harder it is to move. It can be moved, though. You may have to have the lever lengthened. Certainly you ought not to shorten it. The best business lever is advertising—newspaper advertising is the longest lever and the quickest to move trade.

Common sense has a great deal to do with advertising. Think about it from a common-sense standpoint. It may take some "nerve" to pay out money for newspaper space when the business is not paying expenses, but it will pay.

More than half the business houses in the country would be ahead if they could shut up for three months in the summer. But they cannot do it. Why? Simply because they cannot afford to. People would forget them.

Same way in advertising. Think about it.

Dull times are the times to put forth the greatest effort and the most money. People don't usually ask for what they have already. Advertising is merely asking for trade. When the store is full every day, cut down your space. Don't expect that you will get a big trade in dull times, but keep count, and you'll find that the advertising was profitable—profitable right at the time and enormously profitable after a while. The very fact that only a few merchants are wise enough to advertise in dull seasons makes it all the more profitable for those who do. You are there when others are not. It gives you greater prominence. It will make your advertising in busy times much more effective.

Advertisements should never be prepared in a hurry. There ought to be some particular time set apart in each day or each week for the consideration of this question. Do not wait until the last minute, and then write something hurriedly, running the risk of making mistakes, and with almost the certainty of failing to get a really good announcement. A bad advertisement in a good paper may possibly do some good; a good ad. in a good paper will always pay. It isn't such a hard thing to write good ads.; it is mainly a question of taking time enough and giving the matter the requisite amount of thought. Do not say you haven't time, because this part of the business is just as important as any other. In one sense, it is more important, because without it the business cannot amount to very much.

A shrewd advertiser said to me recently. "I like to advertise in papers which

charge a good stiff extra rate for display and for the insertion of cuts. The fact that they do this prevents a good many people using them, and, as a consequence, my ads. are very much more prominent, for I always pay the extra price and use the cuts and display."

I have recommended frequent changes to a man who said: "Yes, but our newspaper charges us extra for composition if we change our ad. oftener than once a week"—or once a month, as the case might be. That doesn't alter the case at all. The advertisement should be changed, and, if it costs a little more, it costs a little more, and that's all there is of it. It will pay to pay the additional charge.

I saw a notice the other day of an advertisement which had been run continuously in identically the same form since 1866.

That advertisement may have done some good, probably did; but, to bring really adequate returns, advertising should be freshened by frequent changes of copy.

Commercial Value of an Even Temper.

Don't grow angry at your employees. If they do wrong, tell them in an explanatory way of their shortcomings; then watch the result. It works like a charm. A kind word can produce a change for the better quicker than a reprimand. The one leaves a desire to do better, the other a sting; both are boomerangs. Choose the wiser plan—*kind words*. It don't do harm to have occasional talks with your people. You have no idea what bright thoughts some of your people have. You can often learn something from them. All they need is a little encouragement to express themselves. It is best to have your people like you. You can get better results from them, and, besides, it is a splendid advertisement. It spreads like wild fire.—*Keystone*.

The Estimation of Glycerine.

Ganther advocates the following process for the estimation of glycerine in the free state or in the combination with fats. The operations are conducted in the gas apparatus described some time ago by the author. Three grammes of solid potassium bichromate are mixed with a sufficient quantity of the glycerine for the estimation (about 3 grammes) and made up to 5–10 cc. with water. The mixture is heated until nearly the whole of the bichromate is dissolved, and then 10 cc. of sulphuric acid (75 p.c.) are added. The CO₂ evolved is measured in the ordinary way. The author claims that the decomposition proceeds exactly according to the equation $C_3H_5O_3 + O_7 = 3CO_2 + 4H_2O$. Of course, in the case of fats it is necessary to saponify and separate the fatty acids before the estimation is made.—*British and Colonial Druggist*.

Pharmaceutical Notes.

SALICYLIC ACID SOLUTION. — It was found some time ago that borax increases the solubility of salicylic acid in water. Some believe that a true chemical compound is formed between these two substances, and that this compound contains exactly one molecule of each, being similar in composition to the tartroborates obtained with tartaric acid. It would be interesting to make more investigations on this subject, for it might be possible thus to produce a still more valuable antiseptic solution than the plain solution of salicylic acid in water, and one in which the irritant effects are reduced, provided that the solution is not made too strong. In making such preparation, it is necessary to use absolutely pure borax, and to discard any product that contains soda or carbonate of soda. If the existence of a true compound of salicylic acid and borax should be placed beyond doubt, it would be interesting to isolate this compound and prepare it for pharmaceutical use. — *Magazine Pharmacy*.

PREPARATION OF THIAACETIC ACID. — This may be readily and quickly prepared, according to Schiff, by carefully heating and distilling a mixture of phosphorous pentasulphide, 1 part; coarsely powdered glass, $\frac{1}{2}$ part; glacial acetic acid, 1 part. The reaction, which soon commences, is easily regulated, and is not attended by excessive frothing. Distillation must be stopped when the thermometer marks 103° C., and the distillate fractionated, the portion passing over between 92° and 97° C. being collected. The substitution of thiaacetic acid for sulphuretted hydrogen is recommended as a reagent for arsenic in particular and the heavy metals in general. Its advantages are: Convenience in use, comparative absence of odor, and absolute freedom from arsenic, even if prepared from a phosphorus containing arsenic. In practice a 6 per cent. solution of the reagent in water, or a 30 per cent. solution in ammonia water, may be used. — *Jour. Chem. Ind.*

MEDICATED GELATINE BOUGIES. — M. J. Schreder prepares bougies with gelatine, as follows: Gelatine, 5 gm., is macerated in water, 25 gm., for a quarter of an hour. Glycerine, 5 gm., is then added, and the mixture heated until solution is complete, when the liquid is strained and again heated until it is reduced to 25 gm. If the medicament is soluble in water, it is dissolved in as little as possible, the solution added to the melted mass, and the whole heated till again reduced to 25 gm. If, however, more than 5 per cent. of the medicament be added, further evaporation of the mass should be avoided. Readily decomposable compounds should be dissolved in a known quantity of water, and that quantity evaporated from the mass be-

fore the addition takes place. Bougies containing silver nitrate can thus be obtained both transparent and colorless. When insoluble compounds are to be added, the gelatine mass should be prepared with water only, and the medicament mixed with the glycerine before mixing. Special precautions to be observed when adding alum, tannin, or ferric chloride to the gelatine mass are described by the author, but in such cases it would seem preferable to resort to the use of some other basis. A similar method of preparing the gelatine mass has been found satisfactory for preparing capsules. — *Nederlandsch Tijdschrift voor Pharmacie; Phar. Journal*.

LIQUEFIED CARBOLIC ACID. — Two years ago Mr. Peter Boa communicated a note to the North British Branch of the Pharmaceutical Society on B.P. liquefied carbolic acid, pointing out that it freezes at 50° F., and in the discussion which followed Mr. George Lunan suggested that the purer the acid the more liable is it to crystallize, and spoke of the use of 11 per cent. of water rather than the official 10 per cent., but whether Mr. Lunan considers that better or not we do not gather from the discussion. The same subject has recently been considered by M. Giot, a Belgian pharmacist, and following up his observations M. van Ledden Huldenbosh, of the *Phar. Weekblad*, gives the following table of results obtained by himself, both acid and water being taken by weight:

Carbolic acid, parts.	Water parts,	Crystallize at.
100	20	2.2° C., or 36° F.
100	15	4.5° C., or 40° F.
100	14	6.0° C., or 42.8° F.
100	13	7.5° C., or 45.5° F.
100	12	9.0° C., or 48.2° F.
100	11	10.2° C., or 50.4° F.
100	10	11.6° C., or 53° F.

The last mixture, which may be considered to be equal to one containing 11 per cent. of water in the British sense, commenced to crystallize at 11° C. The results corroborate the Scotch observations, and show that if acid carbolic liq. B.P. were made to contain 20 per cent. of water it would not give trouble during cold winters, and the dilution would be a convenient one for calculation. — *Chemist and Druggist*.

IODOFORMIN. — E. Kouteschweller suggests that this substance, which is stated to contain 75 per cent. of iodoform, may be analogous to, if not identical with, a compound obtained by him some years ago by mixing alcoholic solutions of Schering's *urotropin* and iodoform with alcoholic solution of iodoform. Chloroform solutions may be used, and the precipitate forming on mixing is decomposed by contact with water evolving iodoform. Iodoform is liberated from iodoform by contact with acid or alkaline liquids, and it is to this property that its efficacy is due, the compound itself being free from the objectionable iodoform odor.

IODINE A GOOD DISINFECTANT. — Iodine is regarded as a good disinfectant, quite as powerful as chlorin. Mr. B. W. Edwards suggests its use by vaporizing the crystals in a hot saucer, or by wetting cloths with an alcoholic solution and hanging them about the room.

WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc., will be inserted once free of charge. Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.

SITUATIONS WANTED.

SITUATION WANTED. — YOUNG MAN, FOUR years' experience, desires situation, wholesale or retail. Temperate, excellent references. Good stock-keeper and salesman. State particulars. Address, "Chemicus," care of this journal.

AS DRUGGIST'S ASSISTANT, OR MANAGER, by graduate of O.C.P., and Ph.D. Toronto University. Six years' experience, city and town. Good references. Moderate salary. Address, Box 21, Angus, Ont.

GRADUATE ONTARIO COLLEGE PHARMACY. Five years' experience. One in Toronto. Age 23. Best of references. Address "Phenazone," Box 147, Port Hope.

BY DRUG CLERK. OVER SIX YEARS' EXPERIENCE, wholesale and retail. Best references. E. H. Lawson, North Augusta, Ont.

DRUGGIST'S ASSISTANT. 4 YEARS' EXPERIENCE. Junior O.C.P. examination. All references. Address, E. F. McKechnie, Smith's Falls.

YOUNG MAN WITH THREE YEARS' EXPERIENCE at drug business (country and city) would like situation anywhere outside Toronto. Can give first-class references. Address, W. B. Netheby, Melville, Prince Edward County, Ont.

FOR SALE.

DRUG BUSINESS FOR SALE IN A COUNTRY village; can be removed if desired; no fixtures. It must be sold, as proprietor is unable to attend to it. Good thing for young doctor or druggist. Particulars on application to Dr. Eby, Sebringville.

A Few Reasons WHY

DRUGGISTS SHOULD HANDLE

Dr. Story's 5-Minute Headache Cure:

First. — Merck says the formula cannot be improved.

Second. — 10 cents is the popular price.

Third. — Out of 48 dailies, Ontario, we have a six-inch display and readers in thirty; will have all in 60 days.

Fourth. — We protect the druggist in that we never sell or allow our goods sold to Department, Dry-goods, or Grocery stores.

Fifth. — The immense profit.

KINDLY SEND AN ORDER TO

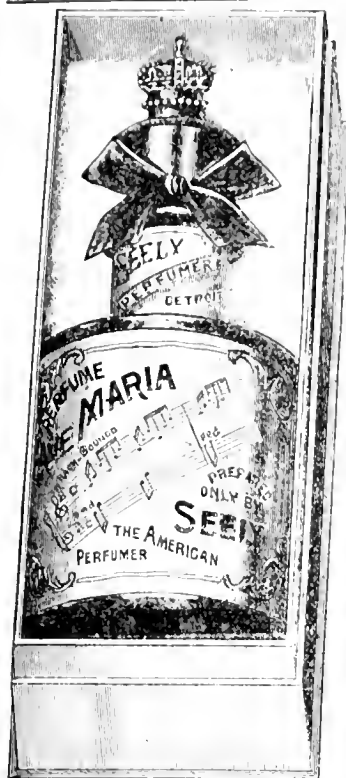
J. A. Kennedy & Co., London,

for 1 Gross of Dr. Story's 5-minute headache cure, at \$5.70 a gross, or 50c. a dozen.

Get ready for the boom. Don't wait, as this journal says, till you have a dozen calls, and your neighbor gets the benefit of the advertising.

STORY MEDICINE CO.

Cleveland, Ohio.



Ave Maria

The latest Aristocratic, Fascinating Perfume is creating a furore in the hearts of American Society.

Up-to-date Ideas in Perfumes Pay

SEND IN YOUR ORDER. EASILY SOLD.
SATISFACTION GUARANTEED.

One Oz. Glass Str. Bottle, 2 in Box, \$4.80

" " Screw Top " 1 " " 5.00

Two " " " " 1 " " 8.00

NOT SOLD IN BULK

Send for Catalogue

Seely Manufacturing Co.

DETROIT, MICH.

WINDSOR ONT.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to February 10th, 1896.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal.....	\$4 37	\$4 05
Methyl.....	1 90	2 00
ALLSPICE, lb.....	13	15
Powdered, lb.....	15	17
ALON oz.....	40	45
ANODYNE, Hoffman's bot., lbs.....	50	55
ARROWROOT, Bermuda, lb.....	50	55
St. Vincent, lb.....	15	18
BAL AM, Fir, lb.....	40	45
Copaiba, lb.....	65	75
Peru, lb.....	3 75	4 00
Tolu, can or less, lb.....	80	85
BARK, Barberry, lb.....	22	25
Bayberry, lb.....	15	18
Buckthorn, lb.....	15	17
Canella, lb.....	15	17
Cascara, Sagrada.....	25	30
Cascarilla, select, lb.....	18	20
Cassia, in mats, lb.....	18	20
Cinchona, red, lb.....	60	65
Powdered, lb.....	65	70
Yellow, lb.....	35	40
Pale, lb.....	40	45
Elm, selected, lb.....	18	20
Ground, lb.....	17	20
Powdered, lb.....	20	28
Hemlock, crushed, lb.....	18	20
Oak, white, crushed lb.....	15	17
Orange peel, bitter, lb.....	15	16
Prickly ash, lb.....	35	40
Sassafras, lb.....	15	16
Soap (quillaya), lb.....	13	15
Wild cherry, lb.....	13	15
BEANS, Calabar, lb.....	45	50
Tonka, lb.....	1 50	2 75
Vanilla, lb.....	8 00	8 50
BERRIES, Cubebs, sifted, lb.....	30	35
powdered, lb.....	35	40
Juniper, lb.....	7	10
Ground, lb.....	12	14
Prickly ash, lb.....	40	45
BUDS, Balm of Gilead, lb.....	55	60
Cassia, lb.....	25	30
BUTTER, Cacao, lb.....	75	80
CAMPBOP, lb.....	85	90
CANTHARIDES, Russian, lb.....	1 40	1 50
Powdered, lb.....	1 50	1 60
CAPSICUM, lb.....	25	30

Powdered, lb.....	\$ 30	35
CARBON, Bisulphide, lb.....	17	18
CARMINE, No. 40, oz.....	40	50
CASTOR, Fibre, lb.....	20 00	20 00
CHALK, French, powdered, lb.....	10	12
Precip., see Calcium, lb.....	10	12
Prepared, lb.....	5	6
CHARCOAL, Animal, powd., lb.....	4	5
Willow, powdered, lb.....	20	25
CLOVE, lb.....	16	17
Powdered, lb.....	17	18
COCHINEAL, S.G., lb.....	40	45
COLLODION, lb.....	75	80
Cantharidal, lb.....	2 50	2 75
CONFECTION, Senna, lb.....	40	45
Creosote, Wood, lb.....	2 00	2 50
CUTTLEFISH BONE, lb.....	25	30
DEXTRINE, lb.....	10	12
DOVE'S POWDER, lb.....	1 50	1 60
ERGOT, Spanish, lb.....	75	80
Powdered, lb.....	60	1 00
Ergotin, Keith's, oz.....	2 00	2 10
EXTRACT, Logwood, bulk, lb.....	13	14
Pounds, lb.....	14	17
FLOWERS, Arnica, lb.....	15	20
Calendula, lb.....	55	60
Chamomile, Roman, lb.....	25	30
German, lb.....	40	45
Elder, lb.....	20	22
Lavender, lb.....	12	15
Rose, red, French, lb.....	1 60	2 00
Rosemary, lb.....	25	30
Saffron, American, lb.....	65	70
Spanish, Val'a, oz.....	1 00	1 25
GELATINE, Cooper's, lb.....	75	80
French, white, lb.....	35	40
GLYCERINE, lb.....	22	25
GUARANA, lb.....	200	2 25
Powdered, lb.....	2 25	2 50
GUM ALOES, Cape, lb.....	18	20
Barbadoes, lb.....	30	50
Socotrine, lb.....	65	70
Asafetida, lb.....	40	45
Arabic, 1st, lb.....	65	70
Powdered, lb.....	75	85
Sifted sorts, lb.....	40	45
Sorts, lb.....	25	30
Benzoin, lb.....	50	1 00
Catechu, Black, lb.....	9	20
Gamboge, powdered, lb.....	1 20	1 25
Guaiaac, lb.....	50	1 00
Powdered, lb.....	90	95
Kino, true, lb.....	2 00	2 25

Myrrh, lb.....	\$ 45	\$ 48
Powdered, lb.....	55	60
Opium, lb.....	3 80	4 00
Powdered, lb.....	5 50	5 75
Scammony, pure Resin, lb.....	12 80	13 00
Shellac, lb.....	40	45
Bleached, lb.....	45	50
Spruce, true, lb.....	30	35
Tragacanth, flake, 1st, lb.....	75	80
Powdered, lb.....	1 00	1 10
Sorts, lb.....	45	65
Thus, lb.....	8	10
HERB, Althea, lb.....	27	30
Bitterwort, lb.....	30	40
Burdock, lb.....	16	18
Boneset, ozs., lb.....	15	17
Catnip, ozs., lb.....	17	20
Chiretta, lb.....	25	30
Coltsfoot, lb.....	20	38
Feverfew, ozs., lb.....	53	55
Gundelia robusta, lb.....	45	50
Horehound, ozs., lb.....	18	20
Jaborandi, lb.....	45	50
Lemon Balm, lb.....	38	40
Liverwort, German, lb.....	38	40
Lobelia, ozs., lb.....	15	20
Motherwort, ozs., lb.....	20	22
Mullein, German, lb.....	17	20
Pennyroyal, ozs., lb.....	18	20
Peppermint, ozs., lb.....	21	22
Rue, ozs., lb.....	30	35
Sage, ozs., lb.....	18	20
Spearmint, lb.....	21	25
Thyme, ozs., lb.....	18	20
Tansy, ozs., lb.....	15	18
Wormwood, oz.....	20	22
Yerba Santa, lb.....	38	44
HONEY, lb.....	13	15
HOPS, fresh, lb.....	20	25
INDIGO, Madras, lb.....	75	80
INSECT POWDER, lb.....	25	28
ISINGLASS, Brazil, lb.....	2 00	2 10
Russian, true, lb.....	6 00	6 50
LEAF, Aconite, lb.....	25	30
Bay, lb.....	18	20
Belladonna, lb.....	25	30
Buchu, long, lb.....	50	55
Short, lb.....	20	22
Coca, lb.....	35	40
Digitalis, lb.....	15	20
Eucalyptas, lb.....	18	20
Hyoscyamus.....	20	25
Matico, lb.....	70	75

Senna, Alexandria, lb.	\$ 25	\$ 30	Queen of the Meadow, lb.	\$ 18	\$ 20	Valerianate, oz.	\$ 55	\$ 60
Tinnevely, lb.	15	25	Rhatany, lb.	20	30	AMYL, Nitrite, oz.	16	18
Stramonium, lb.	20	25	Rhubarb, lb.	75	2 50	ANTINERVIN, oz.	85	00
Uva Ursi, lb.	15	18	Sarsaparilla, Hond, lb.	40	45	ANTIKAMNIA,	1 25	1 30
LICHES, Swedish, doz.	1 00	1 10	Cut, lb.	50	55	ANTIPYRIN, oz.	1 10	1 20
LICORICE, Solazzi,	45	50	Senega, lb.	55	05	ARISTOL, oz.	1 85	2 00
Pignatelli,	35	40	Squill, lb.	13	15	ARSENIC, Donovan's sol., lb.	25	30
Grasso,	30	35	Stillingia, lb.	22	25	Fowler's sol., lb.	10	13
Y & S—Sticks, 6 to 1 lb., per lb.	27	30	Powdered, lb.	25	27	Iodide, oz.	50	55
" Purity, 100 sticks in box	75	75	Unicorn, lb.	38	40	White, lb.	6	7
" Purity, 200 sticks in box	1 50	1 50	Valerian, English, lb. true.	20	25	ATROPINE, Sulp. in ½ ozs. 8cc.,	6 00	6 25
" Acme Pellets, 5 lb. tins	2 00	2 00	Virginia, Snake, lb.	40	45	oz.	6 00	6 25
" Lozenges, 5 lb. tins	2 00	2 00	Yellow Dock, lb.	15	18	BISMUTH, Ammonia-citrate, oz.	35	40
" Tar, Licorice, and Tolu,			RUM, Bay, gal.	2 50	2 75	Iodide, oz.	50	55
5 lb. tins.	2 00	2 00	Essence, lb.	3 00	3 25	Salicylate, oz.	20	25
LUPULIN, oz.	30	35	SACCHARIN, oz.	1 25	1 50	Subcarbonate, lb.	1 75	2 00
Lycopodium, lb.	70	80	SEED, Anise, Italian, sifted, lb.	13	15	Subnitrate, lb.	1 40	1 60
MACE, lb.	1 20	1 25	Star, lb.	35	40	BORAX, lb.	7	8
MANNA, lb.	1 60	1 75	Burdock, lb.	30	35	Powdered, lb.	8	9
Moss, Iceland, lb.	9	10	Canary, bag or less, lb.	5	6	BROMINE, oz.	8	13
Irish, lb.	9	10	Caraway, lb.	10	13	CADMIUM, Bromide, oz.	20	25
MUSK, Tonquin, oz.	46 00	50 00	Cardamom, lb.	1 25	1 50	Iodide, oz.	45	50
NUTGALLS, lb.	21	25	Celery,	25	30	CAFFEINE, oz.	60	65
Powdered, lb.	25	30	Colchicum,	50	60	Citrate, oz.	60	65
NUTMEGS, lb.	1 00	1 10	Coriander, lb.	10	12	CALCIUM, Hypophosphite, lb.	1 50	1 60
NUX VOMICA, lb.	10	12	Cumin, lb.	15	20	Iodide, oz.	95	1 00
Powdered, lb.	25	27	Fennel, lb.	15	17	Phosphate, precip., lb.	35	38
OAKUM, lb.	12	15	Fennugreek, powdered, lb.	7	9	Sulphide, oz.	5	6
ONIMENT, Merc., lb. ½ and ¼	70	75	Flax, cleaned, lb.	3½	4	CERIUM, Oxalate, oz.	10	12
Citrine, lb.	45	50	Ground, lb.	4	5	CHINOIDINE, oz.	15	18
PARALDEHYDE, oz.	20	22	Hemp, lb.	5	6	CHLORAL, Hydrate, lb.	1 25	1 30
PEPPER, black, lb.	12	13	Mustard, white, lb.	11	12	Croton,	75	80
Powdered, lb.	15	10	Powdered, lb.	15	20	CHLOROFORM, lb.	60	1 90
PITCH, black, lb.	3	4	Pumpkin,	25	30	CINCHONINE, sulphate, oz.	25	30
Bergundy, true, lb.	10	12	Quince, lb.	65	70	CINCHONIDINE, Sulph., oz.	15	20
PLASTER, Calcined, bbl. cash.	2 25	3 25	Rape, lb.	8	9	COCAINE, Mur., oz.	6 00	7 00
Adhesive, yd.	12	13	Strophanthus, oz.	50	55	CODEIA, ½ oz.	70	75
Belladonna, lb.	65	70	Worm, lb.	22	25	COLLOIDION, lb.	65	70
Gallanum Comp., lb.	80	85	SEIDLITZ MIXTURE, lb.	25	30	COPPER, Sulph., (Blue Vitriol) lb.	6	7
Lead, lb.	25	30	SOAP, Castile, Mottled, pure, lb.	10	12	Iodide, oz.	65	70
POPPY HEADS, per 100.	1 00	1 10	White, Conti's, lb.	15	16	COPPERAS, lb.	1	3
ROSIN, Common, lb.	2½	3	Powdered, lb.	25	35	DIURETIC, oz.	1 60	1 65
White, lb.	3½	4	Green (Sapo Viridis), lb.	15	25	ETHER, Acetic, lb.	75	80
RESORCIN, white, oz.	25	30	SPIRMACEIL, lb.	65	70	Sulphuric, lb.	40	50
ROCHELLE SALT, lb.	28	30	TURPENTINE, Chian, oz.	75	80	EXALGINE, oz.	1 00	1 10
ROOT, Aconite, lb.	22	25	Venice, lb.	10	12	HYOSCYAMINE, Sulp., crystals, gr.	25	30
Althea, cut, lb.	30	35	WAX, White, lb.	50	75	IODINE, lb.	4 75	5 50
Belladonna, lb.	25	30	Yellow,	40	45	IODOFORM, lb.	6 00	7 00
Blood, lb.	15	16	WOOD, Guaiac, rasped.	5	6	IODOL, oz.	1 40	1 50
Bitter, lb.	27	30	Quassia chips, lb.	10	12	IRON, by Hydrogen.	80	85
Blackberry, lb.	15	18	Red Saunders, ground, lb.	5	6	Carbonate, Precip., lb.	15	16
Burdock, crushed, lb.	18	20	Santal, ground, lb.	5	6	Sacch., lb.	30	35
Calamus, sliced, white, lb.	20	25				Chloride, lb.	45	55
Canada Snake, lb.	30	35				Sol., lb.	13	16
Cohosh, black, lb.	15	20				Citrate, U.S.P., lb.	90	1 00
Colchicum, lb.	40	45				And Ammon., lb.	70	75
Columbo, lb.	20	22				And Quinine, lb.	1 50	3 00
Powdered, lb.	25	30				Quin. and Stry., oz.	18	30
Coltsfoot, lb.	38	40				And Stychnine, oz.	13	15
Comfrey, crushed, lb.	20	25				Dialyzed, Solution, lb.	50	55
Curcuma, powdered, lb.	13	14				Ferrocyanide, lb.	55	60
Dandelion, lb.	15	18				Hypophosphites, oz.	25	30
Elecampane, lb.	15	20				Iodide, oz.	40	45
Galangal, lb.	15	18				Syrup, lb.	40	45
Gelsenium, lb.	22	25				Lactate, oz.	5	6
Gentian or Genitan, lb.	9	10				Penitrate, solution, lb.	15	16
Ground, lb.	10	12				Phosphate scales, lb.	1 25	1 30
Powdered, lb.	13	15				Sulphate, pure, lb.	7	9
Ginger, African, lb.	18	20				Exsiccated, lb.	8	10
Po., lb.	20	22				And Potass. Tartrate, lb.	80	85
Jamaica, blechd, lb.	27	30				And Ammon Tartrate, lb.	80	85
Po., lb.	30	35				LEAD, Acetate, white, lb.	13	15
Ginseng, lb.	4 50	4 75				Carbonate, lb.	7	8
Golden Seal, lb.	75	80				Iodide, oz.	35	40
Gold Thread, lb.	90	95				Red, lb.	7	9
Hellebore, white, powd., lb.	12	15				LIME, Chlorinated, bulk, lb.	4	5
Indian Hemp,	18	20				In packages, lb.	6	7
Ipecac, lb.	1 75	2 00				LITHIUM, Bromide, oz.	30	35
Powdered, lb.	2 00	2 25				Carbonate, oz.	30	35
Jalap, lb.	55	60				Citrate, oz.	25	30
Powdered, lb.	60	65				Iodide, oz.	50	55
Kava Kava, lb.	40	90				Salic ate, oz.	35	40
Licorice, lb.	12	15				MAGNESIUM, Calc., lb.	55	60
Powdered, lb.	13	15				Carbonate, lb.	18	20
Mandrake, lb.	13	18				Citrate, gran., lb.	35	40
Masterwort, lb.	16	40				Sulph. (Epsom salt), lb.	1½	3
Onis, Florentine, lb.	30	35				MANGANESE, Black Oxide, lb.	5	7
Powdered, lb.	40	45				MENTHOL, oz.	55	66
Pareira Brava, true, lb.	40	45				MERCURY, lb.	75	80
Pink, lb.	40	45				Ammon (White Precip.)	1 25	1 30
Parsley, lb.	30	35				Chloride, Corrosive, lb.	1 00	1 10
Pleurisy, lb.	20	25				Calomel, lb.	1 00	1 10
Poke, lb.	15	18				With Chalk, lb.	60	65

Magazines.

Three departments in the February *Peterson Magazine* are notable by reason of their beautiful illustrations. These are "The Musical World," "People Talked About," and "Among the Players." Thirty new portraits illuminate the text.

In the light of the work that the Red Cross Society will endeavor to do in Armenia, an article in the February *Peterson Magazine*, entitled "The Armenian Struggle," will attract much attention. The illustrations are from photographs brought especially from Turkey for this publication.

"The University of Chicago" is one of the leading articles in the February *Peterson Magazine*. It gives a description of this wonderful institution, with more than a score of good pictures of the buildings and their donors. A supplementary sketch and portrait of Mr. Rockefeller accompanies the article.

Ex-President Harrison's next article in his series in *The Ladies' Home Journal* will tell what it means to be President of the United States. He will outline the President's power, his duties, and how he discharges them; the trials and annoyances to which he is put, and show what the central idea of the President is, and how he tries to carry it out. General Harrison also explains what relation each Cabinet office holds to the President and tells of his own relations with his Cabinet when he was President.

The new *Frank Leslie's Pleasant Hours for Boys and Girls* improves with every number. That for February is the best yet; it is full of good things for young people. Oliver Optic starts the number with an interesting Washington's birthday story. An article that every reader of juvenile literature will enjoy is "Favorite Story-writers for Young People," by Frank Lee Farnell, in which are described the methods of work of Oliver Optic, Edward S. Ellis, Nora Perry, J. T. Trowbridge, and Susan Coolidge; finely illustrated with their latest portraits.

Live while you live. Get all legitimate pleasure you can. This is a beautiful world. Don't miss a large part of its pleasure by going through life blindfolded, as many people do. The outdoor world is poetic, pleasing, instructive. There's a wealth of pleasure in roaming over the hills, across the fields, or through the woods. All nature is in harmony of music to the attentive ear. Birds, plants, flowers, ferns, mosses, insects, the beauty of minerals, yes, even the stars above, are strains in this harmony. Get in closer touch. Take *The Observer*, Portland, Conn. Sample 10 cents. One year \$1.

The Lee family of Virginia is the subject of a series of profusely illustrated articles which will constitute a leading feature in *Frank Leslie's Popular Monthly*

during the current year. The February number of this magazine, just out, contains the initial article of the series, entitled "The Ancestors of General Robert E. Lee, and the Times in which They Lived," written by Mrs. Roger A. Pryor, embodying many rare portraits, coats-of-arms, etc. This same February number of *Frank Leslie's* also contains beautifully illustrated articles upon "A Roman Festa," by Theo. Tracy; "Sardinia," by Charles Edwards; "The Social Settlement in America," by Rufus R. Wilson; "West Point," by Carl J. Becker; "Art Students in Paris"; and stories, sketches and poems by Howard Paul, George Edgar Montgomery, Dr. J. H. Porter, J. F. Sullivan, Ella Rodman Church, Lena L. Pepper, and other popular contributors.

The February number of the *Delineator* is called the midwinter number, and covers the whole field of seasonable fashions with its accustomed thoroughness. A very pretty ballad, far above the ordinary magazine contribution, begins the number. Mrs. Roger A. Pryor concludes her admirable series on "The Social Code" with a discussion of the various ways of getting into society. A well-known New York dentist has an article at once scientific and popular on the care of the teeth. Dr. Aimee Schreder brings personal experience to bear in telling of the facilities and obstacles before women who set out to study and practise medicine. Sara Miller Kirby explains the possibilities of Kindergarten work at home. A handsomely illustrated article by M. C. Frederick is devoted to Mexican stamped leather. Subscription price of the *Delineator* \$1.00 per year, or 15c. per single copy. Address all communications to the Delineator Publishing Co., Ltd., 33 Richmond street west, Toronto, Ont.

Stearns' Beef Juice.

An assay made by the *Lancet* (London, Eng.) of Stearns' Beef Juice:

"When it is known that the fluid consists practically of the juice of fresh, lean, uncooked beef, expressed in the cold, its value as a nutrient does not need emphasizing, for it will contain the albuminous constituents of the meat unchanged, besides all the stimulating extractive principles. This accurately describes Stearns' Beef Juice, which is a dark-red liquid, turning semi-solid on the application of heat from the coagulation of the albumens. The coagulum, which is the most important nourishing constituent, amounted to at least one-sixth of the total dry matter, the latter being equal to 44 per cent. The mineral matter consisted, of course, principally of soluble phosphate, and a not excessive quantity of common salt. The taste is agreeably fresh and 'beefy,' and such that invalids could take it without reluctance. The preparation, judging from these results, should serve admirably wherever a vigorous nutrient is needed.—*London Lancet*, November 16, 1895.

Business Notices.

As the design of the *CANADIAN DRUGGIST* is to benefit mutually all interested in the business, and as a rule request all parties, advertising goods or making purchase of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the *CANADIAN DRUGGIST*.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the special consideration of the Business Notices.

The Perfection Novelty Co., Chicago, Ill., have appointed the Canadian Specialty Co., Toronto, Ont., as their Canadian agents. They manufacture some very nice new styles of show cases, with cash drawer and combination locks attached, which should commend themselves, on account of their usefulness and cheapness, to the drug trade. Write to the Canadian Specialty Co. for catalogue.

Thirteen students from all parts of Canada attended the February course at the Ontario Optical Institute, Toronto, conducted by W. E. Hamill, M.D. The rapid popularity this institute has secured shows it is under able management.

The following testimonial from a prominent druggist speaks volumes on behalf of McKay & Co.'s Birch Beer, advertised elsewhere in this issue:

"We tried your 'Blue Seal' Birch Beer, not as the unruly youth at the hands of the ruthless master, but as a thirsty mortal, and found it equal to 'ye olden tyme,' when, as lads, we visited the hills for birch twigs for the toothsome bark.

"'Blue Seal' Birch Beer is, in our opinion, just the right thing in the right place, and we shall have it at our store this season."

Refused to Sell Them.

Mr. W. L. B. Barkwell, London Ont., proprietor of several well-known proprietary remedies, received enquiries recently from the Barnsdale Trading Co., Limited, of Stratford, Ont., well known to the western trade by their price-cutting, about procuring a supply of his preparations. Mr. Barkwell, himself a druggist, replied that "it was his desire to have the sale of his preparations confined to the legitimate channels, viz., the drug trade, and that, in his opinion, there were quite sufficient druggists to supply all demands, and therefore declined their order." This is the plan that should be adopted by all manufacturers—not only for the purpose of keeping in touch with the drug trade, but also for their own self-protection; for, sooner or later—and we believe it will not take long—cut-price proprietaries will cease to have the sale which they would have—if kept in stock by those to whom the public look for what is best in medicine.

"Ou Zoku Zuki Nippon Zoko Kiyoko ho" is the title of the new Japanese Pharmacopoeia.

Iodide, Proto, oz.....	\$ 35	\$ 40	Iodide, oz.....	\$ 40	\$ 43	Geranium, oz.....	\$1 75	\$1 80
Bin., oz.....	25	30	Salicylate, lb.....	1 75	1 80	Rose, lb.....	3 20	3 50
Oxide, Red, lb.....	1 15	1 20	Sulphate, lb.....	2	5	Juniper berries (English), lb...	4 50	5 00
Pill (Blue Mass), lb.....	70	75	Sulphite, lb.....	8	10	Wood, lb.....	70	75
MILK SUGAR, powdered, lb.....	30	35	SOMNAL, oz.....	85	00	Lavender, Chiris. Fleur, lb....	3 00	3 50
MORPHINE, Acetate, oz.....	1 65	1 70	SPIRIT NITRE, lb.....	35	65	Garden, lb.....	1 50	1 75
Muriate, oz.....	1 65	1 70	STRONTIUM, Nitrate, lb.....	18	20	Lemon, lb.....	1 75	1 80
Sulphate, oz.....	1 75	1 80	STRYCHNINE, crystals, oz.....	80	85	Lemongrass, lb.....	1 50	1 60
PEPSIN, Saccharated, oz.....	35	40	SULFONAL, oz.....	40	42	Mustard, Essential, oz.....	60	65
PHENACETINE, oz.....	38	40	SULPHUR, Flowers of, lb.....	2½	4	Neroli, oz.....	4 25	4 50
PILOCARPINE, Muriate, grain....	35	38	Pure precipitated, lb.....	13	20	Orange, lb.....	2 75	3 00
PIPERIN, oz.....	1 00	1 10	TARTAR EMETIC, lb.....	50	55	Sweet, lb.....	2 75	3 00
PHOSPHORUS, lb.....	90	1 10	THYMOL (Thymic acid), oz.....	55	60	Origanum, lb.....	65	70
POTASSA, Caustic, white, lb.....	60	65	VERATRINE, oz.....	2 00	2 10	Patchouli, oz.....	80	85
POTASSIUM, Acetate, lb.....	35	40	ZINC, Acetate, lb.....	70	75	Pennyroyal, lb.....	2 50	2 75
Bicarbonate, lb.....	15	17	Carbonate lb.....	25	30	Peppermint, lb.....	3 60	3 75
Bichromate, lb.....	14	15	Chloride, granular, oz.....	13	15	Pimento, lb.....	2 60	2 75
Bitrat (Cream Tart.), lb.....	29	30	Iodide, oz.....	60	65	Rhodium, oz.....	80	85
Bromide, lb.....	65	70	Oxide, lb.....	13	60	Rose, oz.....	7 50	11 00
Carbonate, lb.....	12	13	Sulphate, lb.....	9	11	Rosemary, lb.....	70	75
Chlorate, Eng., lb.....	18	20	Valerianate, oz.....	25	30	Rue, oz.....	25	30
Powdered, lb.....	20	22	ESSENTIAL OILS.			Sandalwood, lb.....	5 50	7 50
Citrate, lb.....	70	75	OIL, Almond, bitter, oz.....	75	80	Sassafras, lb.....	75	80
Cyanide, lb.....	40	50	Sweet, lb.....	50	60	Savin, lb.....	1 60	1 75
Hypophosphites, oz.....	10	12	Amber, crude, lb.....	40	45	Spearmint, lb.....	3 75	4 00
Iodide, lb.....	4 00	4 10	Rect., lb.....	60	65	Spruce, lb.....	65	70
Nitrate, gran., lb.....	8	10	Anise, lb.....	3 00	3 25	Tansy, lb.....	4 25	4 50
Permanganate, lb.....	40	45	Bay, oz.....	50	60	Thyme, white, lb.....	1 80	1 90
Prussiate, Red, lb.....	50	55	Bergamot, lb.....	3 75	4 00	Wintergreen, lb.....	2 75	3 00
Yellow, lb.....	32	35	Cade, lb.....	90	1 00	Wormseed, lb.....	3 50	3 75
And Sod. Tartrate, lb.....	25	30	Cajuput, lb.....	1 60	1 70	Wormwood, lb.....	4 25	4 50
Sulphuret, lb.....	25	30	Capsicum, oz.....	60	65	FIXED OILS.		
PROPYLAMINE, oz.....	35	46	Caraway, lb.....	2 75	3 00	CASTOR, lb.....	8	10
QUININE, Sulph., bulk.....	32	35	Cassia, lb.....	1 75	1 80	COD LIVER, N.F., gal.....	1 90	2 00
Ozs., oz.....	36	40	Cedar.....	55	85	Norwegian, gal.....	2 75	3 00
QUINIDINE, Sulphate, ozs., oz...	16	20	Cinnamon, Ceylon, oz.....	2 75	3 00	COTTONSEED, gal.....	1 10	1 20
SALICIN, lb.....	75	4 00	Citronelle, lb.....	80	85	LARD, gal.....	90	1 00
SANTONIN, oz.....	20	22	Clove, lb.....	1 10	1 20	LINSEED, boiled, gal.....	62	65
SILVER, Nitrate, cryst, oz.....	90	1 00	Copaiba, lb.....	1 75	2 00	Raw, gal.....	60	62
Fused, oz.....	1 00	1 10	Croton, lb.....	1 50	1 75	NEATSFOOT, gal.....	1 20	1 30
SODIUM, Acetate, lb.....	30	35	Cubeb, lb.....	2 50	3 00	OLIVE, gal.....	1 20	1 25
Bicarbonate, kgs., lb.....	2 75	3 00	Cumin, lb.....	5 50	6 00	Salad, gal.....	2 50	2 60
Bromide, lb.....	65	70	Erigeron, oz.....	20	25	PALM, lb.....	12	13
Carbonate, lb.....	3	6	Eucalyptus, lb.....	1 50	1 75	SFERM, gal.....	1 35	1 40
Hypophosphite, oz.....	10	12	Fenne, lb.....	1 60	1 75	TURPENTINE, gal.....	60	65
Hyposulphite, lb.....	3	6						

Drug Reports.

Canada.

Business during January has been quite active; high prices of staples mentioned in last month's report are maintained.

Morphia, opium, gentian root oil, orange and bergamot are higher.

Heavy chemicals are stiffening up, as is usual at this season as stocks become depleted.

Arsenic is much advanced, and high prices on Paris green may be expected. Insect powder and hellebore will be about the same price as last season for pure goods. Blue vitriol is higher, and the outlook uncertain.

Citric acid is firm. Tartaric has advanced, and manufacturers are not eager to sell, which indicates another advance.

Iodine preparations are still an uncertain quantity. No change so far.

Morphine and opium have advanced, and the impression is that higher prices will prevail for some time, as the present outlook on opium in Asia Minor is bad.

Gentian root is scarce, at advanced prices.

Vanilla beans are higher, and the present outlook is not favorable for lower prices in the near future.

Oil anise is higher, and, as usual in such cases, impure articles are being offered.

English.

London, Eng., Jan. 27th, 1896.

The market has been quiet, on the whole, during the month, although the general volume has been good.

Cardamoms are dearer, and cream of tartar is moving forward again rapidly. Camphor dull, and ergot unsaleable. Gentian root has advanced slightly, and ipecacuanha is firmly held. New cod liver oil (Norwegian) has arrived, and full prices are asked. Aniseed and cassia oils are steady, at recent advance. Cinnamon leaf oil is dearer. Balsams of Tolu and Peru are lower. Shellac is recovering from a recent decline. Vanillas still very dear for good quality.

Cod-Liver Oil.

Report from Joh. Rye Holmboe, Tromsøe, Norway, January 15th, 1896:

The stocks of 1895 cod-liver oil practically are all cleared.

Condition of livers reported to be slightly better than last year.

Winter fisheries utterly poor up till date, on account of bad weather and scarcity of fish.

Lofoten fishery does not commence till end of January.

Production of new oil quite unimportant. Probably 100 to 150 barrels. No official report issued yet.

Quotation cannot be given. I expect the opening price to be about 175sh. cif East coast.

Trade Papers Deserve Success.

A man who subscribes for a trade paper does so not because he is alive to the interests of his trade in general, but because he expects to find in it—and generally does—information and suggestions of value in the conduct of his own business. Such a man reads his paper from end to end, advertisements and all, commenting as he goes along. Many things are jotted down on his memo. pad for everyday use, as well as for inquiring further into on his first visit to market. And as it is necessary for a man to be wide-awake nowadays in order to succeed in business, these are the men who subscribe to their trade journal and are the advertisers' best patrons. They cannot afford to pass anything which promises help or suggests additional profits. Hence the trade journal is the best medium for advertising things which concern the man's business. —*Newspaperdom.*

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VIII.

TORONTO, MARCH, 1896.

No. 3

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

Subscription \$1 per year in advance.

Advertising rates on application.

The CANADIAN DRUGGIST is issued on the 15th of each month, and all matter for insertion should reach us by the 5th of the month.

New advertisements or changes to be addressed

Canadian Druggist,

111 1/2 RICHMOND ST. WEST,

TORONTO, ONT.

EUROPEAN AGENCIES:

ENGLAND: Aldermay House, 60 Watling Street, London, E. C.

FRANCE: 5 Rue de la Bourse, Paris.

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Of Special Importance.

We have just recently been able to make arrangements with one of the most successful advertisement writers in the country to open and conduct for us a special advertisement-writing bureau, and we shall try to explain to you something about the working of this department, but would ask you, if you are interested, to write for further particulars, and giving us, as far as possible, a full description of your business, just what you have been doing in the past, and what you would like to do in the future, thus furnishing us, in confidence, sufficient information about your business to enable us to form some general idea as to what is the most practical way of promoting its interests. Our special advertising bureau will take your store into consideration, and will write you a letter giving you full information as to what plans we would think advisable to use in advertising you, and stating to you just what the cost would be if we take control of the writing and suggesting of the various advertisements which you might need.

The charges in each case will be exceedingly moderate, considering the value of the service which you will get. Anyway, write for further particulars. It will cost you nothing if you do not care for it after investigating.

Our bureau can do this only by having a large number of houses to work for. This will give you expert service and expert advice equal to any that is had by the largest houses in the United States who employ a special expert to look after their individual business. We propose, through this department, to put the small merchant, or the merchant doing a medium business (who is not in a position to employ an expert for his exclusive use), in the same position to advertise intelligently and profitably as is done by the larger houses in New York, Chicago, and a few other large cities who have heretofore been alone able to do this high-class work.

We propose in this department to do any kind of advertising work which you may wish done, whether you be a retailer in a small country store or a large wholesaler in a big city.

We propose in each case to first make a conscientious study of your business and its needs, and to then advise you as to just what are the best methods to increase your business, and as to about what expenditure of money will be necessary to carry out the plans.

We have no special features to which we wish to cater, and if we find on investigation that advertising by circulars is likely to be more profitable to you than advertising in newspapers we shall be free to say so, and also tell you when your advertising expenditures are too large just as quickly as to tell you when they are too small. Having intelligently discussed with you what it is proper to do to push your business, the department then proposes, for a small price, which will be within the reach of your business means, to take charge of your advertising to any extent that you may desire, to do the whole business, originating and getting up special sales, and the advertising matter that is necessary to conduct them, down to simply writing such occasional advertisements as you may desire, bringing out the points which you may yourself suggest.

We want the department to be an intelligent help to every one who feels like taking hold of it. Only one store in a city, however, can join this league, as it would not do for us to be pushing the business and the advertising of more than one store in any one locality. We want therefore, to receive immediate application from the best stores all over the country. Those who feel that they would like to improve their business and make it grow more rapidly than it has been doing will, without doubt, communicate with us. The first store from each town which applies will have the refusal of the service, no matter whether it be a large or

small store. If, after due consideration, the first applicant decides not to take hold of the matter, then the second applicant will be given an opportunity, where more than one application is received from one city. The advertisements which this department will write for stores will all be original. It will not consist of clippings or copies of something someone else has done. They will all be of the most approved up-to-date pattern, and will be written in the style which is best adapted to your business and to the class of trade to which you wish to cater. This is the first opportunity of this kind that has ever been presented to the general trade, and we have no doubt it will create a profound sensation among merchants, and we believe will do much toward putting any business into the way of making money rapidly. This special department of advertisement writing is now open for applications. As soon as those who apply make up their minds as to whether the service is what they would like to have or not the work will immediately begin, and there will be no delay in the service, which will take hold of your business and push it along for this season, and keep the good work going as long as you like.

There is no charge for furnishing you further information on the subject.

A Form of Substitution.

The prevalence of substitution is a theme which has been dwelt upon time and again, and, notwithstanding all that has been written and said in condemnation of this dishonest and unbusiness-like method of doing business, it will continue as long as there are dishonest and dishonorable men in trade, or, at least, until such time as laws can be put into operation which will prevent a system so fraught with danger to the general public and demoralizing to the trade. There is a form of substitution to which our attention has recently been drawn which is not, perhaps, always intentional, that is, it has been practised without, perhaps, considering whether it was a case of substitution or not. We refer to the filling of containers which have been furnished by manufacturers for the display of *their* goods with goods made by other manufacturers. For instance, the manufacturers of "Tutti-Frutti" chewing gum furnish a handsome show jar in which their goods are to be displayed; but, frequently, it has been found that

the goods of some other maker are placed in it, and the purchaser is given this article, although purporting to be "Tutti-Frutti." In the same way we have seen bottles, bearing the names of other prominent manufacturers, the contents being those of an entirely different maker. In many cases we believe these things are done thoughtlessly, and without intention to deceive the public; but we know that in many cases the object is to palm off some of these goods as "substitutes" for the goods originally contained in these packages, and thereby practising deception and fraud upon the customer, who, in dealing with the druggist, has done so in the belief that he could be trusted, but who will, sooner or later, discovering the dishonest ways of such a dealer, not only forsake him, but persuade others to do the same. Even this, one of the *milder* forms of substitution, should be avoided, not only in justice to the customer who has sufficient confidence in you to deal with you, but also as a wise business policy.

A Good Officer.

At the time when the Society of Retail Druggists selected its officers, it was felt by many that it was unfortunate that the president and secretary resided so far apart. Mr. Pepper, in preliminary work, had shown such skill and applied ability that his permanent selection was a foregone conclusion. The working out of the plans of the association have shown, however, that in this case, at least, the apparent mistake has turned out to be the very opposite.

The president, being located in the very midst of the trouble, and where wholesalers' influence can be more readily commanded, is at exactly the right spot; and the secretary, being also situated in the midst of the trouble, as it applies to the interests of the druggists in the western portion of the province, where cutting has been for a short time so disastrously carried on, is just in position to judge properly of the influences immediately surrounding him, and to determine the course which local influences impel the pursuance of. If the druggists generally appreciate as thoroughly the immensity of the work performed by Mr. Pepper as does the president, Mr. Gibbard, they will be as willing as he to concede and commend the quality of the work he is performing on their behalf. From our own knowledge of the secretary,

and from our judgment of the work which his office demands, we feel that the officer and the office have been most judiciously combined.

How Druggists Should Stand.

The druggists of the city of Toronto are to-day as one man in the desire to maintain a policy which will stem the tide of the destructive price-cutting which has been for years and is still being carried on in their midst.

The determination which they arrived at when Mr. Gibbard called them together recently to consider the course they would pursue, namely, to unitedly raise prices to the manufacturers' advertised rates on the 1st of April, shows that they are willing to fight the matter out in any way which circumstances may thereafter show the necessity of. That the contest will likely be fraught with serious consequences to some of the members of the retail trade is conceded, but short agony is possibly preferred. Even the most obtuse reasoner will not to-day assert that druggists can compete with departmental stores on a five- and ten-cent-margin, especially when the departmental store can buy in quantities and at prices on a par with the wholesaler who supplies them. Customers of Toronto druggists frequently say to them, "How is it you can't sell these things as cheaply as Simpson, Eaton, McKendry, etc.?" and the only reply which can be given which will reasonably succeed is that, if these houses were retail druggists alone, they could not do it either. If that is true, and we are sure it is, then it cannot possibly be affirmed that retail druggists can compete without finally being worsted in the contest. The plan which the drug trade has now adopted is the only one which can save its members from general ruin, and the parties to it must give it loyal support if it is to succeed.

The lessons recently taught some houses of a jobbing character in Toronto, who have had their local drug sundry trade wiped out in a few weeks, show clearly what druggists can do even without concerted action when they feel that they are being systematically betrayed. With concerted action, and applied throughout the entire province, there is no house, not even the strongest, which could stand the destructive influence which could be applied to their trade.

We suggest this to our patent medicine manufacturers, as they, under present cir-

Protonuclein...

Tablets. (100 3-grain Tablets in bottle) per doz. \$9.00
 " (1000 3 grain Tablets in bottle) . each 6.75
 Powder. (1 oz. bottles) per doz. 6.00
 " (8 oz. in bottle) each 5.50

REED & CARNRICK,
 30 Wellington St. East, TORONTO.

Duncan, Flockhart & Co.'s

Blaud Pill Capsules

Are soft and flexible Never become oxidized
 Never become hard Never vary in strength

These Capsules are put up in 1, 2, and 3-pill sizes, with or without Arsenic, and can be supplied in boxes of 25 or 100 (each). They are prepared by a unique and original process, which entirely overcomes the tendency to **hardening** which is so common in the **Blaud Pills**.

R. L. GIBSON,
 30 Wellington St. East,
TORONTO.

Wampole's

BEEF, WINE, AND IRON.

In Pint Bottles.....\$5 00 per doz.
 Winchester (1 1/2 Imp. Gal.)..... 2 00 each.
 Imp. Gallon, in 5 gal. lots, and over 3 50 per gal.

With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

1/4 Gross lots, and over.....\$60 00 per gross.
 (Packed in One-Dozen Cases.)

We use a Pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

We invite comparison with other manufacturers, and will cheerfully furnish samples for that purpose.

Your early orders and enquiries solicited through Wholesale Jobbers or direct from us.

Henry K. Wampole & Co.,
 MANUFACTURING PHARMACISTS,
Philadelphia, Pa.

Canadian Branch:

36 and 38 Lombard Street, TORONTO.

March Winds are Blowing

ORDER AT ONCE SOME OF

BILLINGS, CLAPP & CO'S

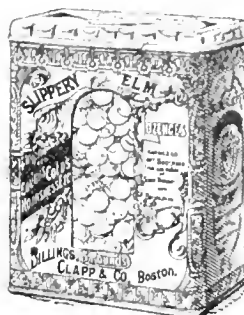
(BOSTON)

SLIPPERY ELM TABLETS

In 5 lb. Glass Front Display Tins

\$1.25

Also in Cartons of 40 5-cent Boxes.
 SAME PRICE.



COBB'S Pine Tar Cough Drops

Stamped C.C.C.

In two strengths, Medium and Strong
 40 5-cent Packages for \$1.25



Vollor's Gilt Edge Spruce Gum

6 sticks in box, retailing for 5 cents. 30 boxes in carton for 90 cents.

Sonder's (Royal Remedy and Extract Co.)

Sweet Wheat, After Dinner, Celery and Pepsin, Tolu Sugar Plums Chewing Gums.

Restuccia's Pure Cream Salad

Olive Oil, in 1 imp. gallon tins.

Chapireau's Cacheteuses and Cachets

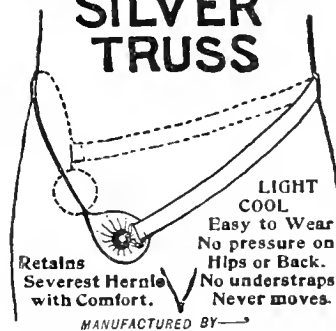
WRITE FOR SAMPLES AND PRICE-LIST.

CANADIAN SPECIALTY CO.

38 Front Street East, Toronto, Ont.

FRONT AND BACK VIEW

AMERICAN SILVER TRUSS



MANUFACTURED BY
 The Smith Manuf'g Co., - Galt, Ont.

The Silver Truss

IS A NEW INVENTION,
 NEW IN PRINCIPLE,
 NEW IN DESIGN,
 NEW IN APPLICATION,
 and the MOST PERFECT KNOWN.

The great success of this Truss in holding with comfort all kinds of hernia, whether adults, youths, or infants, all over Canada, the United States, and Europe, is phenomenal. They have been adopted by leading hospitals, surgeons, and rupture specialists of the United States, and by Westminster and Guy's Hospitals, London, Eng. No greater recommendation could be accorded any appliance than its adoption by the physicians and surgeons comprising the staffs of these hospitals, which rank among the largest and best in the world.

MANUFACTURED BY

THE SMITH MANUF'G CO., GALT, ONT.

THE Lyman Bros. & Co. LIMITED

TORONTO, ONT.

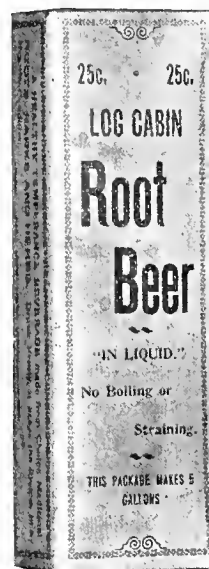


AS MANUFACTURED and sold by us for

Forty Years

is brought out this season in more convenient shape. It is put up, six pieces in a packet, retailing at 10 cents, and three pieces in a packet for 5 cents.

**A New Package
Excellent Preparation
Good Seller**



WE ARE HEADQUARTERS IN CANADA FOR

Star Aluminium Combs

Log Cabin Root Beer

THESE COMBS ARE MADE OF HARDENED PURE ALUMINIUM. NO BASE METAL USED AS AN ALLOY.

Pocket Comb, No. 4, Leather Cased



One-half fine and coarse teeth, \$2.75 per dozen

Barber's Comb, No. 6,



7 1/2 inches long, tapered, half coarse and fine, \$4.25 per dozen.



Ladies' Dressing Comb, No. 12,

7 1/2 inches long, coarse and fine, \$5.50 per dozen.



TRY A SAMPLE LOT WITH YOUR NEXT ORDER

OUR LINE OF

SPONGES

in all grades is very complete. It will pay you to see our samples before placing your orders for spring.

circumstances, would be the most likely to create antagonism, unless their actions were sufficiently loyal to save them. The general drug trade, in its individual membership, would not feel the absolute cutting off from their trade of even the best-selling patent remedy on their shelves; but the manufacturer, who is entirely at the mercy of the individuals, would be doomed in a month.

The Toronto druggists, at least, are not very much influenced by the fear of the consequences to themselves in the method to be pursued. They are pretty well over the departmental store scare, and are beginning to realize the power they possess when unitedly applied. Their town and village confrères can rely upon their co-operative action in any event, and can enter into this contest feeling that there is something to work for and to win, and a splendid prospect of success crowning their loyal efforts.

Legislation on Optics.

That the science of optics is one which has in the past been a subject which has not received the recognition which it deserved is now generally conceded. That very important member of our body, the eye, has quite as much, or, in fact, more reason to receive careful and scientific treatment for its weaknesses, as well as its ailments, as has perhaps any organ of the human system; yet how often is it most shamefully treated and its ailments aggravated at the hands of those who have no conception of what is required! The establishment, however, of schools for the purpose of instruction in everything pertaining to optics has worked a change in this matter, and now there are numbers of graduates of these schools or institutes throughout the country who can be safely depended upon to treat defects of vision practically and scientifically.

There is no doubt that ere long legislation will be enacted which will prevent the public being imposed upon by those who are totally ignorant of what is required by the skilled optician, and which will also guarantee to the practical man a degree of protection such as will render his calling that of a profession instead of a mere vendor of goods.

An act is now before the legislature of the State of New York, asking for the incorporation of the Optical Society of that state, and its objects are outlined in a letter which has been addressed to the

daily press by one of the promoters, and in which he says:

"It will lawfully sustain the opticians' traditional right to adapt glasses to the sight. It will protect the public against misrepresentations on the part of the optician as to his abilities and lawful functions. It will secure a higher scientific and practical proficiency on the part of the optician, which is undoubtedly for the public welfare.

"To attain these objects the society seeks to be vested with the power to qualify by a proper examination all those men who desire to become opticians after the passage of the act.

"All opticians now engaged in business as principals and their appointed representatives at their respective places of business will not be required to pass an examination, but will receive certificates, entitling them to continue their practices as heretofore, provided they shall have recorded their names and addresses with the society not later than ninety days after the passage of the act.

"By such means the society will have a record of all opticians who now have the unrestrained right to practise in the State of New York. Beginning with this stage the society proposes that all men hereafter wishing to become opticians for their own account must submit to and pass an examination by the Board of Examiners, which shall be composed of members nominated by the society, but under the jurisdiction of the state.

"In presenting the bill before the legislature, it was essential to introduce a clause limiting the amount which should be charged for certificates, but which limitation will be discretionary with the legislature to allow. Within the legalized limitation, it will be wholly discretionary with the society subsequently to fix the charge."

Pharmaceutical Association of the Province of Quebec.

The semi-annual examinations for major and minor candidates will commence on Tuesday, April 14th, 1896, at 9 a.m., and will be held in the College of Pharmacy, 595 LaGauchetière street, Montreal. Candidates must file their applications, duly certified, with the registrar, on or before the 4th of April. Printed regulations and form of application must be obtained from the registrar, and be duly signed by the applicant.

Candidates who have failed more than once in their examinations will be required to pay the full examination fee.

No applications for examination will be received after the 4th day of April.

E. MUIR, Secretary-Registrar,
595 LaGauchetière street.
Montreal, March 5th, 1896.

Snap Shots

Newfoundland druggists are becoming modernized—they are cutting prices.

An international pharmaceutical exhibition will be held in Prague between August 15 and September 15 next.

The retail drug trade in the United States is not pleased at the advance in price of Paine's Celery Compound.

With the advent of spring, what about a stock of photographic instruments and supplies for the amateur photographers of your neighborhood?

Bicycling has proved a blessing in more ways than one to the drug trade, many druggists now acting as agents for bicycle firms and doing quite a nice business.

The Pharmaceutical Society of Great Britain has succeeded in having a grocer fined for selling fly paper containing arsenic, in contravention of the Pharmacy Act.

What patent medicine house made that large cash sale to a department store just previous to the date agreed upon with the Retail Association? retailers are enquiring.

Another new drug journal has made its appearance, and, strange coincidence, the CANADIAN DRUGGIST never had such a demand for its advertising pages as for the present issue.

We are pleased to be able to report the hearty co-operation of the wholesale drug trade in the plan agreed upon with the retailers. Many large orders have been refused, where satisfactory evidence was not forthcoming as to the destination of the goods.

Possibly, relying on the advertisements of the departmental stores, that druggists were getting "400 per cent. profit," burglars have been making raids on several Toronto drug stores. As far as ascertained, they have not been able to find the advertised article.

An Explanation.

EDITOR CANADIAN DRUGGIST:

SIR,—In your February number "Montreal Notes," I notice that your correspondent gives me the honor of presiding at a meeting of retail druggists recently. Please correct this in next issue.

Mr. W. H. Chapman was chairman at the meeting referred to, while the secretaryship was accepted by

Yours truly,

J. E. TRIMBLE.

Cinnamic acid has been detected among the decomposition products of crude cocaine. According to H. Frankefeld, when crude cocaine is exhausted with boiling water, the latter takes up the greater part of the free cinnamic acid, which may then be isolated by means of its calcium salt.



Officers and Committee of the O.C.P. Students' Association Class, '06.

Extract Ficus

"E. & CO."

Syrup of Figs.

This is not a secret remedy, but contrariwise. The label bears the plain information that each fluid-ounce contains the active principles of 125 grains Alexandria Senna. For this reason the physician is able to prescribe it with exactness.

The flavour of Senna is completely disguised by a delicious cordial, in which the fig flavour predominates. Nausea and griping are overcome.

SHELF FORM - - \$3.75 per doz.

16 Oz. BOTTLES - - 65 cents each.

1 Gall. BOTTLES - - - \$3.25 each.

**Canadian
Cattle Spice**

Many druggists are in the habit of preparing, or having prepared for them, some kind of CONDITION POWDER.

To meet such requirements we have selected a thoroughly reliable formula, according to which we manufacture such quantities as enable us to sell our product, in place of private formulae, at considerably lower cost.

To create a demand it is sold under the above popular title, and each shipment is accompanied by a supply of advertising matter.

100 POUND COTTON BAGS.

1 QUART CARTONS.

Ask for more "Ads." when required.

Effervescing Hydrobromate of

Caffeine

and

Bromide of Potassium

"E. & CO."

What more common than Headache, Over exertion (mental or physical), Sleeplessness, etc.?

In this preparation we offer an excellent remedy at a price that ensures a large demand.

10 cent samples contain two doses, and the 25 cent size contains twelve full doses.

Evidence is plentiful that success attends its introduction, provisional upon some attention to its display.

When received we will issue handsome advertising panels.

ALL OUR SPECIALTIES ARE REMUNERATIVE.

Manufacturers of
PILLS, FLUID EXTRACTS, ETC.,
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MANUFACTURING
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Our sale last year shows this.

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ARCHDALE WILSON & CO.,
WHOLESALE DRUGGISTS, - HAMILTON.

We Manufacture

Envelopes
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DO YOU WANT THESE GOODS?
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The Perfect Tooth Powder

Has captured the market wherever it has been introduced. If it is a new thing to you, here are a few reasons why you should handle it:

It is cleansing, antiseptic, fragrant, refreshing.

It is perfectly harmless.

It has been analyzed by the most expert chemists, who all report in the most favorable terms.

It sells at a glance in the first instance, and on its reputation thereafter.

It yields more profit to the retailer, and to the consumer a greater quantity of the best quality, than any other tooth powder in the world.

Order from your wholesale house

AROMA CHEMICAL CO., - TORONTO

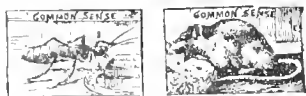
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Red Cross English Dressings,
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Glass and Earthenware,
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1895 List and Discounts now ready.

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Common Sense Exterminator

FOR ROACHES:

25c. each, \$1.75 doz.; 50c. each, \$1.75 doz.; \$1.00 each, \$8.00 doz.

Common Sense Exterminator

FOR RATS AND MICE:

15c. each, \$1.00 doz.; 25c. each, \$1.75 doz.; 50c. each, \$3.50 doz.; \$1.00 each, \$8.00 doz.

Only infallible remedy known. No smell from Dead Vermin. Not Poisonous to man or beast. Once used always recommended. Sold by Wholesalers at

MONTREAL, TORONTO, and LONDON.

Common Sense Mfg. Co.,

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Manufacturers of Common Sense Stove Polish, and Common Sense Bicycle Lubricator.



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WRITING IN SIGHT.
 INTERCHANGEABLE TYPE.
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THE LATEST IMPROVEMENTS!
 WHAT MORE CAN YOU ASK?

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ALL KINDS OF . . .

CRUDE DRUGS.

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FREDK. GRAF, DRUG
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Established 1886. Prices and samples on application.

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Hypophosphates a Specialty....

Acids Phosphoric and all other Pure Acids.

Ammonia Nitrate, Ovalate, Valerianate and all Ammonia Salts.

Antimony Crocus, Sulphide, Golden Sulphuret, and all Antimonial Preparations.

Essences from Fruit, etc., for Confectionery.

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All Chemicals for Analytical, Photographic, and Pyrotechnical Purposes.

New Book of Recipes

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Price \$12.00

One thousand modern and reliable formula for producing the following:

Paints, Colors, Varnishes, Oils, Greases, Soaps, Blackings (various), Laundry and other Blues; Polishes for Iron, Brass, and Metals; Colors and Enamels for China and Glass; Gold Paint, Liquid Gold and Silver, Glues, Gums and Sealing Waxes; Inks of all kinds; Lithographic and Printing Colors (all the newest shades); Litho. and Printers' Varnishes; Stains, Varnishes, and Preservatives for Leather; Creams, Stains, Polishes, and Varnishes for Furniture; Orange, Venetian Red, Ultramarine, Purple Crocus, and other Powders; Dyes, Colors, and Chemicals for Textile Goods; Pigments and Coal Tar Colors; Fancy Soaps and Candles; Perfumes, Scents, Pomades, Eau de Cologne, Cosmetics, Hair Dyes, Creams, Pastes, Pastilles, Glycerine, Disinfectants; Essential Oils of Peppermint, Almonds, and Nutmeg; Infants' Foods, Pepper, Sauces, Chutney, Digestive Relishes, Currie Powders, Malt Tablets; Baking, Egg, and Cutsard Powders; Flavoring Spices, Syrups, Jellies, Fruit and Soluble Essences; Ointments, Rouges, and Paints; Vinegar and Acetates; Wines, Cordials, and Beverages; Mineral Waters; Photographic Chemicals; Trade Chemicals; and many other new and scientific processes with full explanatory notes as to the method of manufacture.

Press Opinion.

"'CHEMICAL RECIPES.' Nearly one thousand modern formulae for producing all kinds of colors and other chemical compositions, with full explanatory notes and instructions for manufacture, etc. We have received from the Atlas Chemical Company, Sunderland, advance proofs of this work, which will undoubtedly be very valuable. Books of recipes are not infrequently most unreliable, being copied from book to another without any regard for practicality or accuracy. In this case the Atlas Chemical Company have succeeded in giving a number of recipes that are stamped throughout with the word 'practical.'—Oils, Colors, and Drysalteries.

The object aimed at has been to place within the reach of small manufacturers, managers, and even workmen, the means of producing the various commodities for which recipes are given, without putting them to the expense and difficulty of erecting elaborate and costly plant and machinery. The difficulty of providing such plant would, in the majority of cases, be absolutely insurmountable. While this book of recipes will undoubtedly be more useful to the manufacturer on a small scale, it will be found interesting to firms more extensively engaged in the manufacture of chemical products. There are hints and suggestions that may well be heeded by manufacturers of paints, soaps, varnishes, and ceramics. The work consists of 316 pages of interesting matter, very well printed in bold type.—The Oil and Colorman's Journal.

Telegrams: "CHEMICALS, SUNDERLAND."
 Letters: ATLAS CHEMICAL CO., Sunderland, England.

Trade Notes.

H. Proctor, druggist, Drayton, Ont., has made an assignment.

H. G. Martin, druggist, Canning, N.S., has given up business.

Hooper & Co., druggists, King street west, Toronto, have dissolved partnership.

A. W. Harding, formerly in Kamloops, B.C., has opened a drug store at Trail, B.C.

Dr. Vermette has moved his drug business to 105 St. Dominigo street, Montreal.

Abbott & Morton have sold their drug business at Ottawa, Ont., to Miller & Kennedy.

Johnson & Johnson, Charlottetown, P.E.I., have opened a branch store at Souris, P.E.I.

Bernard Bros., druggists, Point St. Charles, Montreal, have sold their business to Mr. Belanger.

Charles Wright, druggist, of Toronto Junction, has been charged by Detective Wasson with practising medicine in contravention of the Medical Act.

W. B. Graham, druggist, Ridgetown, Ont., has moved into the corner store of the Porter Block. He is anxious to dispose of his old fixtures at a bargain.

G. E. Gibbard druggist, 287 King street, west, with branch at 588 College street, Toronto, has made an assignment. Liabilities said to be about \$4,000, with assets of an equal amount.

The name of Evans & Sons, wholesale druggists, Toronto, Ont., was, through some mistake, omitted from the list of the wholesale houses on the "friendly list" in the circular issued by the Ontario Society of Retail Druggists. The parent house at Montreal was given, but the other overlooked.

Two well-dressed men in Montreal have been going the rounds of the drug stores, and while the prescriptions which they present are being filled they help themselves from the stock. Mr. Reynolds, of the Wellington Medical Hall, whom they tried to victimize, telephoned for the police; but as they heard the message, they replaced the articles before the officers arrived, and so got off.

Burglars have been busy, during the last couple of weeks, operating on drug stores in Toronto. The store of W. H. Burgess, 278 Yonge street, was entered by means of a cellar window. A few dollars in change was all that was taken. The same night Hargreaves Bros.' drug store, 174 Queen west, was broken into, and some loose change and postage stamps taken. On the 2nd of March, at Weston, just as Mr. T. G. Watson, druggist, was about closing his store, a man entered, and at once demanded money. Mr. Watson refused, whereupon the intruder downed him and threatened to shoot if he made any resistance. He then secured the

contents of the till, which amounted to some seven or eight dollars. The Weston car, with the unsuspecting robber inside, was overtaken at Humberstone avenue, and before he could get out of the car they were upon him.

Montreal Notes.

The pharmacists and wholesale drug men have been very busy lately on the hockey field. Although hockey, in a rink, has been called "Fun in an ice chest," nevertheless it is generally "hot while it lasts," as Count Nosko says.

Mr. J. Hertz, according to a contemporary, will open a pharmacy at the corner of Craig and Place d'Armes Hill.

Mr. Belanger has purchased the business of Messrs. Bernard Bros., at Point St. Charles.

Mr. Smith, of Lachine, has been found guilty of infraction of the Pharmacy Act.

In the now celebrated Tailoretti case, the several members of the Mondehard family and Mr. Tailoretti were last Thursday committed to the Court of Queen's Bench by the police magistrate. Mr. Tailoretti's business was sold some time since to Mr. S. Lachance.

Toronto houses are well represented by commercial travellers in Montreal. Evidently they do not come here without being able to offer advantages which our own local jobbers cannot give.

There seems to be considerable difference of opinion amongst pharmacists about signing the agreement to purchase only from *bona fide* wholesale houses in consideration of their active assistance in preventing cutting by departmental stores and groceries. Some say there is scarcely a wholesale house that does not sell retail, and others complain of wholesale houses joining private little combines as to prices. There is evidently a want of accord between the two bodies.

Manitoba Notes.

Mr. B. M. Canniff, of Portage la Prairie, and Mr. G. W. McLaren, of Morden, were in Winnipeg attending the annual meeting of the Pharmaceutical Association.

Mr. J. W. Higginbotham, druggist, Virden, was in Winnipeg last week on his way home from Eastern Canada, where he had been visiting relatives.

Mr. A. E. Hill, of Griswold, and Mr. N. J. Halpin, of Brandon, were in Winnipeg attending the immigration convention.

Mr. E. D. Martin, of the Martin, Bole & Wynn Company, with his son, Master Eddie Martin, returned last week from Ottawa.

Mr. James A. Macdonald, druggist, Whitewood, has sold out his drug business to Messrs. James R. Bud & Co., of the same place.

Mr. Wm. Young has retired from the

firm of Messrs. A. Young & Co. at Neepawa. Mr. Arthur Young continues.

Dr. Carscallen, of Morris, has disposed of his business in that place to Messrs. Lawrie Bros., who will conduct the business under the firm name of the Morris Drug Hall.

Mr. A. R. Leonard, of Stonewall, paid Winnipeg a visit last week.

Mr. D. W. Bole, of the Martin, Bole & Wynn Company, accompanied by Mrs. Bole, returned from Dollarsville, Michigan, where they have been visiting relatives.

Druggists throughout the province report business fair, but collections somewhat depressed.

British Columbia Notes.

Druggists report, throughout the province, very fair business the last month. The weather has been fairly good; though, in spite of this, the influenza has been almost epidemic. Quite a little attention is now being directed toward the mining centres, and druggists are among the many who have gone thither to be in time for the spring opening.

Your correspondent has always endeavored, through these columns, to point out the error of cutting prices, and until last month British Columbia could boast of being practically free from all suspicion. Vancouver has suffered at the hands of jealousy and revenge, and for a time things looked very bad. Patents were advertised by one firm at cost prices. It was nipped in the bud. That firm saw the error of their way, and at the time of writing *right* prices prevail.

The British Columbia *Gazette* of February 27th prints a list of registered druggists and apprentices in the province. There are 71 licentiates of pharmacy and 24 apprentices. Of these licentiates, 54 are registered as in business before the passing of the Pharmacy Act, 1891; 10 have been registered since then on the O.C.P. diploma; 1 on the N.B.P.A. diploma; 1 on the Oregon diploma; 1 on the W.A. diploma; 1 on the P.A.G.B. diploma; 1 on a diploma (name not given); and 2 by examination.

Mr. Samuel Hanson, "druggist by examination," has closed out his store on Government street, Victoria, and has gone up to the Kootenays to try his fortunes.

Mr. Frank M. Cryderman, late of the firm of Dean & Cryderman, left Victoria on the 5th inst. for Teslin Lake, which is in both Cassiar and the Northwest Territories. There he will try mining for a living, applying the knowledge gained by a course of lectures on assaying, etc., recently given in Victoria and Vancouver, as preliminary to the establishing of a School of Mines.

Chas. Nelson, registrar of the B.C.P.A., has moved into a more commodious corner store on Cordova street, Vancouver.

The next meeting of the council of the B.C.P.A. is due March 12th, and the examinations for licentiate of pharmacy and certified clerk (major and minor) are to be held April 1st and 2nd. These dates are subject to change at the discretion of the council.

The coldest weather this winter visited Victoria during the first week of March, when 22° F. was registered (10 degrees of frost).

Manitoba Pharmaceutical Association.

Feb. 10th, 1896.

At the annual meeting of the Pharmaceutical Association of the Province of Manitoba, held at the Clarendon Hotel, in the city of Winnipeg, the following members were present: J. F. Howard, president; C. Flexon, vice-president; J. C. Gordon, G. W. McLaren, B. M. Canniff, W. R. Bartlett, H. E. Mitchell, E. S. Knowlton, A. R. Leonard, W. A. B. Hutton, M.D., H. E. Butcher, A. E. Kelly. There were also present: H. H. Cassleman, J. Giles, and Mr. Van Buskirk.

The minutes of the last annual meeting were read.

Moved by Mr. Canniff, seconded by Mr. McLaren, That the minutes of the last annual meeting be adopted. Carried.

The report of the council was then read, which consisted of the reading of all the minutes of the council meetings for the past year.

Moved by Mr. Leonard, seconded by Mr. Mitchell, That the report of the council be adopted. Carried.

The registrar then read his report:

GENTLEMEN,—I beg to report as follows:

There have been added to the register during the past year fifteen new members, also seven clerks and twenty-one apprentices. Of this number five passed the major examination and ten were registered upon production of the requisite evidence of their qualifications. In March I notified all members, clerks, and apprentices in arrear in payment of their fees that unless the same were paid at once I would, in accordance with by-law No. 4, remove their names from the register and omit their names from the list which would be published in the daily papers and *Pharmaceutical Journal*. This had a very good effect, and I think, considering the amount outstanding at that time, that the accounts are now in very good shape, there being but \$312 owing by members. As to clerks and apprentices, a number of my notices were returned through the post-office, they having, apparently, changed their addresses without giving notice. It is impossible to state whether they are still employed in this province.

There was one prosecution during the year, which resulted in the defendant, A. F. Sutherland, of Boissevain, being fined \$20 and costs, amounting to \$31.50. Sutherland was conducting a stationery and fancy goods business, and, in con-

nection with this, was selling drugs without a license.

In the matter of G. A. Fraser, which was discussed at the last annual meeting, the case was placed in the hands of the association's solicitors for prosecution. They have just notified the council that they are in receipt of advice that Fraser is leaving the province.

From the fact that there is a probability of there being the necessity of some prosecutions during the coming year, the Attorney-General's Department was seen to ascertain if the provincial police would act in the interests of the association, but the head of the department stated that it was outside of their *régime*, and declined to take any action.

The following names have been removed from the register, being out of the province or out of business: J. K. Hollingshead, J. C. Stoyt, J. Williams, R. F. Green, Dr. J. M. Eaton, G. A. Sheren, G. W. Berry, Dr. W. R. Thomas, Dr. J. L. McInnis, S. Ball, Max Peplow, R. Kyle, Max Benjamin, G. H. Cameron, and Dr. Whyte.

The register for the current year, containing the names of 87 members, besides clerks and apprentices, is placed before you.

(Signed) W. D. MACDOUGALL.

The registrar's report was adopted.

The report of the treasurer was read, as follows:

To Balance.....	\$ 199 76
Registrations and renewals.....	1052 00
Lecture tickets.....	135 00
Rent of house.....	94 70
By Supplies.....	\$ 61 38
Printing and advertising.....	58 80
Lectures.....	300 00
Examination fees.....	174 00
Mileage.....	91 15
Valuator's fees.....	5 00
Announcement.....	40 00
Taxes.....	33 70
Legal.....	50 00
Registrar's salary.....	80 00
Balance on hand.....	484 43

ASSETS.

Cash on hand.....	\$ 484 43
Real estate.....	1860 00
Outstanding fees.....	312 00
Salary due J. K. S. by Ont. Mining Co.....	250 00
	\$2906 43

LIABILITIES.

Rent, Medical College.....	\$ 250 00
Hough & Co., legal expenses.....	41 81
E. B. Shuttleworth.....	162 00
Martin, Bole & Wynn.....	1 80
Stovel & Co.....	15 00
E. A. Blakely.....	12 00
Taxes.....	24 25
G. W. McLaren, mileage.....	27 90
B. M. Canniff.....	7 80
Supplies, postage, etc.....	36 50
W. D. Macdougall.....	50 00
W. R. Bartlett.....	16 80
	\$ 615 86
	\$2290 57

Moved by E. S. Knowlton, seconded by A. E. Kelly, That the treasurer's report be adopted.

The auditors' report, certifying the

accounts to be correct, was read, as follows:

Moved by Mr. McLaren, seconded by Mr. Bartlett, That Mr. Mitchell and Mr. Cassleman be appointed scrutineers to count the ballots for election of the council for the ensuing two years. Carried.

The president then made his annual address, as follows:

As the term of office of the present council and my presidency expire together to-night, I deem it a fitting occasion to volunteer a few remarks relating to our association and to pharmaceutical matters generally.

But before proceeding to review the business of the year, I wish to express my thanks to the members of the association for having honored me with a place at the council board for the past ten years, and to assure the council that I appreciate the kindly feeling which prompted them to place me in the position of president for the last four years.

There have been few changes in the personnel of the council during the past ten years, and I consider that fact a fortunate one, as frequent changes would tend to weaken the efficiency of the council, new members requiring time to become thoroughly conversant with the requirements of the association and the details of administration. For, although the duties imposed upon the council are not arduous, it is important to the general welfare that they should be faithfully and wisely performed, and that result can only be secured by having a council whose members are possessed of a knowledge of affairs, and who work in harmonious accord for the general good. Druggists, as a class, are busy men, with little time to spare from the management of their own affairs, and few of them can devote the few hours, four or five times a year, which the requirements of the association demand, without a sacrifice.

The fact that so few find time to attend our annual meetings is sufficient evidence of this contention. Our thanks are, therefore, due to those country members who come to Winnipeg two, three, or four times during each year, at great personal inconvenience and loss of time, being absent from their business for two or three days, and receiving no more remuneration than their bare expenses and the consolatory reflection that they are doing their duty.

I do not wish to convey the impression that I consider this interest in the good of our profession confined to the members of the present council; on the contrary, I think that just as good material is to be found all through the province, and you can scarcely make a mistake in selecting your council from the available members of the association.

The drug business has reached a stage of development in the province where the utmost care must be exercised to ensure a successful future. A great responsibility will rest with the councils for the next few years. They must zealously guard

DR. HAIR'S ASTHMA CURE

Relief
Quick

Cure
Certain

Dr. Hair's Asthma Cure is a remedy made according to scientific knowledge that will cure **Asthma**. Thousands are permanently cured annually by this cure. It is a radical, speedy, and sure cure for all forms of Asthma. It is for sale by all the leading wholesale druggists in the Dominion of Canada, to wit: Lyman Brothers & Co.; Evans & Sons Toronto, Ont.; Lyman Sons & Co., Montreal, Quebec Forsyth, Sutcliffe & Co., Halifax, Nova Scotia; J. Winer & Co., Hamilton, Ont.; and T. B. Barker & Sons, St. John, New Brunswick.

A supply of Dr. Hair's pamphlets, and other Asthma literature, also prices and terms, will be sent to any retail druggist on request.

All druggists should keep this remedy.

Your early orders and enquiries solicited through wholesale druggist, or direct from us.

None genuine without the trade-mark.

Manufactured only by Dr. D. W. Hair, Cincinnati, O., U.S.A. Address,

DR. W. B. HAIR

341 West Fourth St., Cincinnati, O.

FOR BODY AND BRAIN

SINCE 30 YEARS ALL EMINENT PHYSICIANS RECOMMEND

VIN MARIANI

The original French Coca Wine; most popularly used tonic-stimulant in *Hospitals, Public and Religious Institutions* everywhere.

Nourishes, Fortifies, Refreshes

Strengthens the entire system; most Agreeable, Effective and Lasting Renovator of the Vital Forces.

Every test, strictly on its own merits, proves exceptional reputation.

Palatable as Choicest Old Wines

LAWRENCE A. WILSON & CO., Sole Agents, MONTREAL

Effect of the French Treaty

CLARETS AT HALF PRICE

The Bordeaux Claret Company, established at Montreal in view of the French treaty, are now offering the Canadian connoisseur beautiful wines at \$3.00 and \$4.00 per case of 12 large quart bottles. These are equal to any \$6.00 and \$8.00 wines sold on their label. Every swell hotel and club are now handling them, and they are recommended by the best physicians as being perfectly pure and highly adapted for invalids use. Address: BORDEAUX CLARET COMPANY, 30 Hospital Street, Montreal.



For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

23 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at \$1.00. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.



CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and \$1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

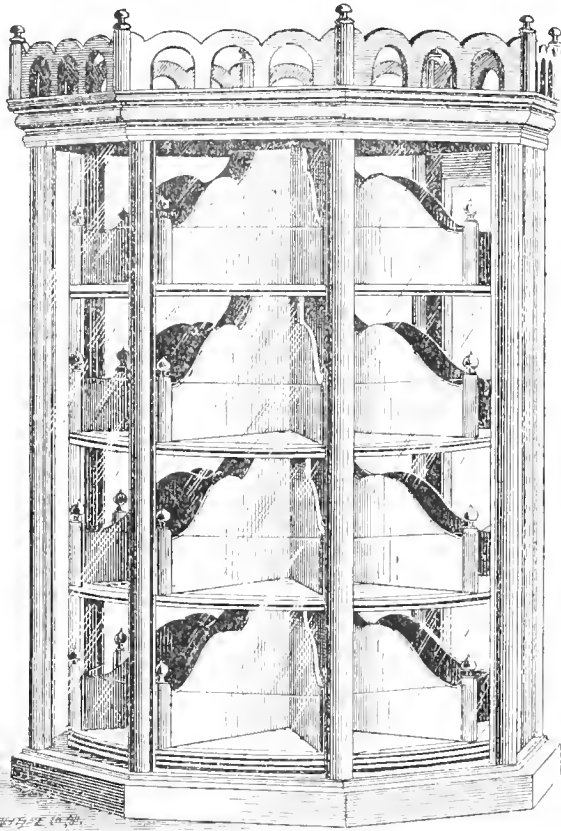
ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton and London, Ont., and Winnipeg, Man.

Eye Openers in Show Cases

Having been appointed Dominion Agents for THE PERFECTION NOVELTY CO. of Chicago, Ill., we are prepared to furnish any of their Show Cases at remarkably low prices.



Candies cannot be sold unless they are well displayed.



THIS CASE GIVES YOU A PERFECT DISPLAY, and allows no sampling.



It has an octagon base, 28x28, and is 42 inches high, having the capacity of a 10-foot show case, while it occupies only 28 inches of counter room.

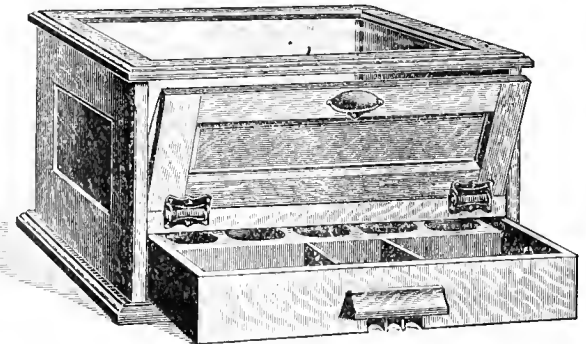
THE PERFECTION EXHIBITION CASES

Have Solid Oak Frame, highly polished, with double thick glass, and affords the most advantageous display of thirty-two different kinds of candies, or other small merchandise. The interior, made of odorless wood, revolves, and has four shelves, each of which has eight compartments, and each compartment will hold 5 lbs. of candy. A door at the rear, 10 inches wide, gives easy access to the goods.

PRICE, \$20.

"PERFECTION"

Combination Money Drawer and Cigar Case.



STYLE NO. A 20.

Neat inside dimensions: Length, 18 inches; width, 18 inches; depth, 6 inches

Polished Oak Frame, good quality glass and hardware, and first-class workmanship.

Money Drawer is provided with a combination susceptible of thirty-three instantaneous changes. It is also provided with a beautifully toned gong that sounds every time the drawer is opened.

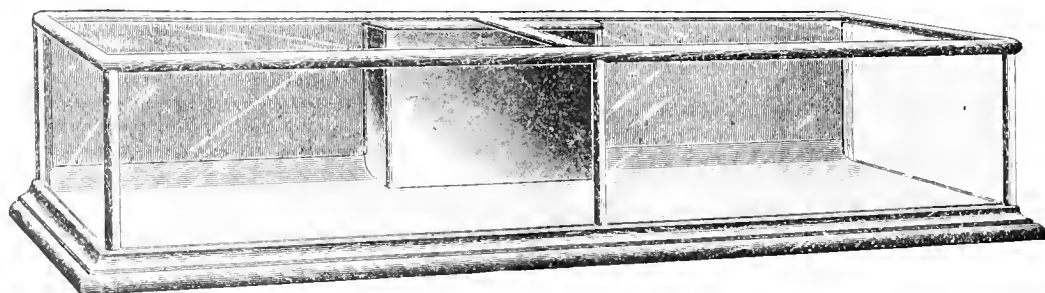
The door is locked when the money drawer is closed, and, as a consequence, pilferers cannot help themselves. This is a handsome little piece of store furniture, and will please in every instance.

PRICE, \$9.50.



"Perfection" Combination Money Drawer and Cigar or General Show Case

THE
GREATEST
SHOWCASE
ON EARTH



STYLE NO. 4.

Length, 4 feet.
Width at bottom,
28 inches.
12-inch glass in front
and ends.

1,100 square
inches of display
room.

PRICE ONLY \$12.50. Hard to beat.

This Case has rolling doors, combination money drawer, with gong alarm. Prices F.O.B., Toronto, Ont.

Send for Illustrated Catalogue to

Canadian Specialty Company

38 Front Street East,

Toronto, Ont.

the interests of the association in order to maintain its standing, extend its influence, and strengthen its stability.

In the past we have been successful in resisting the several attempts which have been made to contravene our Act, and so far it has worked satisfactorily. We have made some enemies by enforcing it when the interests of the association called for extreme measures, but in every instance we have exercised all the leniency possible, consistent with our determination to enforce a recognition of our rights.

I am happy to have the privilege of congratulating the druggists of the province on the prosperous condition of our business, which is healthier, I believe, than that of the pharmacists in any country in the world, and it rests with ourselves to secure a continuation of our present prosperity. We are free from price cutting and dispensing physicians—the two great causes of trouble and loss in eastern Canada and the United States. I believe that the formation of the Ontario Society of Retail Druggists, and their line of action, of which we have read in the eastern journals, will be of great assistance to us, if they can succeed in rescuing the business from the chaotic state into which it has fallen in Ontario, and I think it will be our duty as an association to offer them our support, and strengthen their hands by every possible means in our power. Considering the difficulties our confrères of Ontario have to contend with, ours is a path of roses, and we should have no trouble in travelling over it to success.

I am told that a druggist in Vancouver, some time ago, undertook to cut prices, in the hope of drawing trade which he could not secure in the regular way, due, no doubt, to his incompetency as a druggist, and in a very short time he found the regular purchasing channels entirely closed to him. A number of things have occurred of late which show that the wholesalers and manufacturers are awaking to the fact that their interests and ours are identical. I was very much encouraged by the results of our action, taken a year or two ago, on the tablet triturate question. When the manufacturers came to hear our sentiments in the matter, they at once instructed their representatives not to push them, and I am told that their sale in this province is almost *nil*.

I have also to refer with pleasure to the friendly and co-operative feeling existing between the druggists and physicians. I believe the continuation of such satisfactory relations rests almost entirely with the druggists, and we should all carefully avoid any action which might endanger it.

Four years ago, at our annual meeting, I brought forward a scheme for affiliating the teaching body of this association with the University. The council was empowered to take the necessary action to secure the end proposed, but as the proposition necessitates the co-operation of

the Medical College, and as the faculty were at that time, and up to last year, so absorbed in the task of settling certain disputes which had arisen among themselves, we have not been able to make any progress. I would, however, commend the question to the incoming council. While on this subject, I might say that the council has been enabled to make good progress in the matter of lectures. The present arrangement with the Medical College gives us the use of a fairly complete apparatus. We occasionally hear murmurs of discontent from some of our students—that is to be expected; but we have the satisfaction of seeing a large proportion passing examinations which are equal to those of any college in the Dominion. And I cannot help but think, when about seventy-five per cent. of our students take, some of them exceptionally high marks, with the present facilities, that the complaints we hear are more attributable to the complainers than the lecturer, or the facilities afforded.

In regard to the reduction of membership fees, if the fees of members are reduced the fees of students must be very largely increased, and I am of the opinion that the druggists of the province can better afford to pay \$10 a year than the student can afford possibly a hundred dollars for the lectures. I will not dwell on this subject, as I believe it will come up for further discussion.

The vice-president, Mr. Flexon, in replying to the president, said that gentleman had covered the ground pretty thoroughly. He facetiously charged the president with a lack of introspection, as he did not inform his listeners how much he loved his position. It was the speaker's opinion that Mr. Howard would not vacate the chair for all the gold mines of the "Lake of the Woods." He had simply, for the last four years, revelled in the luxury and lucrativeness of his office. The speaker did not envy him, but sincerely hoped that he would continue to fill the chair as capably as he had always filled it. That he had filled it capably and honorably, and at all times to the best of his ability, could not for a moment be questioned by anybody who knew the man; certainly not those who had sat with him from time to time in council directing the affairs of the association. But it must not be imagined that the president's path had been entirely smooth; there had been a few rocks of a good size thrown in his way, not the least of which was the defalcation of the late registrar, but through the skill and legal discretion of Mr. Howard the obstacle had been surmounted, and the affairs of the association were again on the road to progress. Continuing, the speaker said: It has been thought, perhaps, by members throughout the province that the affairs of the association have not received sufficient attention at the hands of the council. All I can say, gentlemen, is that the proceedings of the council are recorded in

the minute book, and that book, being the property of the association, is open to the investigation of the members; and I say, further, that it is their duty to investigate, and they should give the result of their investigation to the council. In this way the shortcomings of your representatives would become known, and perhaps a remedy discovered for them; but I believe the council has not strayed much in its efforts to promote the welfare of the Pharmaceutical Association of Manitoba. Of some of the questions asked me is that in reference to the membership fee. The fee is considered absurdly large. In order to show you why the council has not seen its way clear to reduce the fee, an estimate of receipts and expenditure has been prepared by the registrar for the ensuing year.

A perusal of this estimate makes it evident that the greatest possible amount of revenue that the council may expect is \$1,347, against which amount a total of \$1,137 will be required for expenditure (here the speaker reviewed the various items of the estimate), thus showing a surplus of \$210 to place to the credit of the association. Now, that would not be a very large amount to place to one's credit; but suppose we should accede to the wishes of some of our friends and fix the members' fee at \$4, as it is in Ontario, what would be the result? Why, instead of an income from members alone of \$781, we should have but \$348. In this way we should be met with a deficit of \$223. In making comparisons, or, more properly speaking, contrasts, between ourselves and our confrères of Ontario, we have to reckon with numbers indeed.

In that province there are 850 members who pay into the exchequer of their association a sum of \$3,400, and I am given to understand that so rapid is the growth of the membership there that even now a further reduction in the membership fee is contemplated. Now, how could we face the deficit alluded to (here the speaker reviewed each item of the expenditure account, and showed the impossibility of reducing the various amounts)? The last item on the list is the sum of \$300 which we pay our lecturer, and here perhaps a wide field for discussion may be opened up.

Various thoughts, I have no doubt, will be contributed to this important topic. In my humble opinion the sum is not too large; but it might be possible to give the students the privilege of taking their two courses of lectures in one year instead of two years, as is now the custom, by altering the term of six months to eight months. In other words, twelve months' lecturing covering two years should be accomplished in eight months, covering one year. If such can be done in Ontario, there is no reason why it should not be possible here.

Then, again, the students' fees not only should be large enough to pay the lecturer's salary, but they might be made larger, so as to turn a surplus into the

treasury of the association. It must be borne in mind that the students' fees here are about one-half of those in Ontario; but if our students could get through their lecture course in one year, they would surely have no cause to complain of an increase in their fees to \$75 or to \$90. A change of this kind would be a step towards an effort to reduce the membership fee of \$10, which does certainly seem too large. Whilst dealing with fees and lectures, it would probably not be inopportune to make ourselves sure of the character of our lecture as regards efficiency. I make this reference because I have heard indistinct and indirect rumors of dissatisfaction on the part of students; but I am free to admit, and I do so frankly and openly, that the council has received no tangible evidence of the inefficiency on the part of the lecturer, and I for one, gentlemen, do not intend bringing groundless charges against the much-esteemed person in question. If evidence of such a nature had been placed in the hands of the council, prompt action, I am sure, would have been taken. This much, however, I will say, that as one of the examiners I have found many of the candidates very ill-prepared for the examination work; but the fact furnishes no evidence of inefficiency of the lecturer. The trouble is here, as elsewhere, that too many students think they can acquire all their knowledge from the lecturer, and that the text-books and standard works can be made a secondary consideration, whereas the converse of this should be the guiding rule—books first, and lectures second. The lecturer should be the agent, so to speak, of the text-books and standard works, and he should possess the faculty, if not the genius, to illustrate clearly and forcibly the many problems of the sciences on which he is engaged to teach.

So, gentlemen, Dr. Hutton, of whom I have personally the kindest regards, seems to me to be beyond criticism—in fact, beyond our ken—as we have no information on which to take action. Had we possessed such information, we could, at a short notice, I believe, have secured the services of a trained instructor from one of the large centres on the other side of the line. As the night is advancing, I will now transfer the discussion of these subjects into your hands.

Dr. Hutton, who spoke after Mr. Flexon, reviewed the lecture work at the college during the last term, and made it quite evident to his listeners that in endorsing Mr. Flexon's views he was decidedly handicapped in the illustrations of some of the practical work under his care, viz., pharmacy and materia medica; two of the most important subjects, proving that although his theoretical instruction might be faultless, it was impossible for him to do justice to the practical side of the subjects. He further stated that in consequence of the University Council's proposal to make a change in the lecture courses at the Medical College, it would

be necessary to make some corresponding changes in the lecture courses of pharmacy students, so that it may be possible yet that the two lecture courses of our students covering a period of one year may be realized. The doctor spoke at some length, and left a favorable impression on the minds of the gentlemen present. The speaker was decidedly pronounced in his views regarding the advisability of inaugurating a faculty.

The scrutineers, having duly counted the ballots, reported the following gentlemen had received the requisite number of votes: John F. Howard, J. C. Gordon, C. Flexon, E. F. Martin, W. R. Bartlett, A. S. Kelly, W. Pulford.

Moved by Mr. Howard, seconded by Mr. Flexon, That the thanks of the association be tendered to Mr. McLaren and Mr. Canniff for the interest they have displayed in the affairs of the association for the past twelve years.

In speaking to his motion, it was with much regret that the president (whose views were unhesitatingly shared by the vice-president) heard that an adverse vote had dispensed with the services of Mr. McLaren and Mr. Canniff on the new council. A high tribute was paid to these gentlemen when the president said that they had for the past twelve years been marked for their energy and fidelity while custodians of the affairs of the association. In fact, it will be a long time, perhaps never, when the Pharmaceutical Association of Manitoba will have two worthier representatives.

Mr. McLaren, in thanking the president and vice-president for their very kindly remarks, said it was with feelings both of regret and satisfaction that his name did not appear among those selected to serve the association during the coming two years. He had felt for some time that in his twelve years of service on the council he had fully discharged what claims the association had upon his time, and he would have declined nomination this time had it not been for the pressure brought to bear upon him by the president, who very flatteringly places a greater estimation upon the services rendered than he (Mr. McLaren) thought they deserved. Owing to the train service on the branch line upon which he resided, he could not come in to a council meeting without losing three days from his business.

Mr. McLaren spoke encouragingly of the prospects of pharmacy in the province, and assured the incoming council of his support.

Mr. Canniff fully endorsed and appreciated the remarks of Mr. McLaren. He had often felt that the demands on his time were greater than he could afford to give. He knew the impossibility of any council giving satisfaction to the entire membership of the association, but felt that his actions had been consistent with the belief that they were right, and was very pleased to know from the president's remarks that these actions were appre-

ciated by the council. Mr. Canniff spoke at some length upon the earnest efforts of the examiners, of which board he had been a member for some years.

Mr. Canniff wished the incoming council every success, and continued prosperity to the association.

The following resolution was introduced and moved by G. W. McLaren, and seconded by Mr. Canniff:

Resolved, that the association hereby tenders its congratulations to the Ontario Retailers' Association on the success with which they have met and are meeting with in their efforts to prevent the cutting of prices to an unprofitable basis, and the securing of the co-operation of so large a majority of the retail and wholesale trade, and of the manufacturers of medicines, towards the re-establishment of prices, instead of at present in many cases on a losing one, and that our sympathies are with them in this matter, and that we heartily wish them every success in their enterprise.

Moved by Mr. Bartlett, seconded by Mr. Kelly, That a vote of thanks be tendered Mr. Bunnell for the use of room for meeting, and that the registrar convey the same to him.

Moved by Mr. Canniff, seconded by Mr. Gordon, That the thanks of the meeting be tendered Mr. Mitchell and Mr. Cassleman for their duties as scrutineers.

Moved by Mr. McLaren, seconded by Mr. Gordon, That E. E. Lightcap and H. Mitchell be appointed scrutineers for the ensuing two years.

PILL-MASSSES FOR CREOSOTE, ETC.—Among the latest recommendations for preparing pill-masses of creosote, extract of male-fern, etc., is that of Meitert (*Pharmaceutische Post*), who uses powdered Castile soap, to which he adds sufficient licorice to give the necessary firmness. When creosote and fern extract are mixed thus in pills, the author claims there is no separation.

Evelé recommends for pills of creosote, croton oil, etc., powdered animal charcoal. For the preparation of creosote, for instance, the author takes 1 gm. of the substance and 2 gm. animal charcoal and rubs them together until a soft mass is obtained. He then adds more charcoal, to the extent of, say, 60 centigrams, obtaining a soft-looking mass, but one which will not adhere to either mortar or pestle. The addition, finally, of 20 or 25 centigrams of Venice turpentine produces an elegant pill-mass.

Remarking on the last formula, the *Pharmaceutische Centralhalle* calls attention to the fact that Venice turpentine is by no means an indifferent agent, as the author seems to regard it, and especially in those very diseases in which creosote is usually given. It affects the kidneys powerfully, and should therefore never be employed by the pharmacist for a pill mass without the knowledge and consent of the physician.—*National Druggist*.

About Cough Drops!

Should Druggists handle those lines every Confectioner and Grocer sells?

Should Druggists drive the trade to the Confectioners by limiting their line to the nauseous and old brands that the public are tired of?

Why not carry and push the sale of

Honey and Horehound Cough Drops

when they sell well, and are sold only to the Drug Trade?

Mr. J. S. Armitage, Paris, Ont., writes:
"Send another pail of those Honey and Horehound Cough Drops at once. I sold the first pail in only ten days."

It will pay you to use our five and ten-cent sizes of folding cartons to encourage the sale of Cough Drops; and advertise your Cough Syrup on the back of them.

LAWSON & JONES
LONDON, CANADA.

Have You

Somerville's Pepsin Gum?

It is the Gum the others are selling.

It is admitted to be the best Pepsin Gum made in Canada.

Our Carving Set Premium Packages are having a great sale.

C. R. SOMERVILLE
LONDON, ONT.

STEARNS' Cascara Aromatic

(THE ORIGINAL)

Is a fluid extract, not a cordial, syrup, or other dilute preparation, of prime and selected two-year-old bark, which is of full strength, yet sweet in taste, the bitter principle being entirely masked. It is the only liquid preparation of Cascara, of concentrated dose, applicable to cases of delicate women and children, to whom the intense bitterness of the ordinary fluid extract is nauseating to a prohibitory degree. It is powerful and yet gentle in effect, and, in addition, does not gripe. This, next to its taste, is its most valuable property.



It is most important that **STEARNS'** should always be specified when Cascara Aromatic is ordered, as preparations similar in name, but otherwise entirely different from ours, are on the market. Our preparation is neither trade-marked nor patented, and our name used in its connection is our only protection, as well as yours.

Stearns' Cascara Aromatic is not bitter and does not gripe, which important characteristics distinguish it from all other fluid extracts of Cascara Sagrada.

"Imitation is the sincerest form of tery," and the number of imitators an article may have is one of the best proofs of its excellence, as poor and unsuccessful things are never imitated. After a long period of experimental work, we placed upon the market in 1889 (six years ago) the first palatable

fluid extract of Cascara Sagrada ever devised. This was prepared by a special process, original with us, by which the bitter principle was eliminated from the product without injuring its therapeutic value whatsoever. Furthermore, by making use of two-year-old bark only, our Fluid Extract possessed none of the griping properties that the ordinary bitter Fluid Extract did. This preparation was called "**STEARNS' CASCARA AROMATIC**," which title was first used by us, there being no other preparation of Cascara on the market under that name. Other houses, as well as ourselves, had offered Cordials, Elixirs, and Syrups of Cascara, which, however, did not fill the bill, all being dilute preparations, the largeness of dose being objectionable, to say nothing of the excess of alcohol that cordials and elixirs contain, and the cloying sweetness of syrups, which derange the stomach. Stearns' Cascara Aromatic filled a long-felt want for a concentrated liquid preparation of Cascara of full strength, each minim representing one grain of prime two-year-old bark.

To conclude: Had not Stearns' Cascara Aromatic been successful, there would have been no reason for other Cascara Aromatics, and this important drug would not have been so widely used as it is to-day. It was owing to our discovery of an original method of preparing it that Cascara is so popular with the profession as a tonic laxative, and we feel warranted in believing that the profession, who are interested in true advancements of pharmacy, will appreciate our position, and give honor to whom honor is due, by specifying invariably *Stearns'* when Cascara Aromatic is prescribed. Stearns' Cascara Aromatic is the only full-strength fluid Extract of Cascara Sagrada *which is not bitter and which does not gripe.*

Sold by all jobbing houses at \$1.20 per lb., in single pound lots; in 5 lb. bottles, at \$1.10 per lb., or it may be ordered direct from

FREDERICK STEARNS & CO.

Manufacturing Pharmacists,

WINDSOR, ONT.

DETROIT, Mich.

LONDON, Eng.

NEW YORK CITY.



"BLUE



SEAL"

COFFEE - CHOCOLATE - FLUID BEEF

Have such a delicious flavor and are so rich, smooth, and invigorating that they delight every one and are therefore now being dispensed by the best Druggists of this country. We warrant them for strength, uniformity, and fine flavor unsurpassed, if equaled, by any other extracts. A trial of them will convince you.

Send for Free Samples

or order trial package that is returnable at our expense if not perfectly satisfactory.

Blue Seal Coffee Extract	75c. a lb., \$4.00 a gal.
Blue Seal Chocolate Extract	50c. " 2.25 "
Blue Seal Fluid Beef, \$1.00 a lb., \$4.00 for 5 lb. bottle,	6.00 "

(Order, if you prefer,
through your Wholesaler.)

McKEY & CO., Boston.

(No Charge
for Packages.)

The Value of a Pharmaceutical Journal to the Pharmacist *

By RICHARD H. KIMBALL, Hartford, Conn.

The real value of a pharmaceutical journal to a druggist may be said to depend largely upon whether the druggist is up to date or a back number. In these days of new remedies, new chemicals, and new compounds, there is scarcely a week or a day passes but there comes a demand (either from the physician in the form of a prescription, or from some patron) for some new derivative of coal tar, some new chemical, or some new principle which has been isolated. The druggist who is keeping up in the race wants to be posted about these things and able to answer all questions which may be asked him about them. The books of reference which he may have give no information. Where, then, shall he look? Why, to his drug journal, of course. The druggist who does not keep posted on these new things gets badly left in the race after pharmaceutical knowledge. What can be more annoying to a druggist who is not an old foggy or a back number than to have inquiry made for or about something which he is unable to furnish or give information? Often, yes, quite often, we are called upon by the physician to give information about some new chemical or compound, either its solubility, incompatibility, dose, or physiological effects, all of which the physician ought to know, but the fact of his asking the druggist shows he does not. We are supposed to know all about these new things, and how much higher we stand in the estimation of the physician if we are able to answer his questions promptly than if we could not do so. If we are able to give information asked for, where do we get our information? From the pharmaceutical journals of the day. Are they valuable to me? Yes, of inestimable value. The pharmaceutical journals which I take (I wish I could take them all) are a source of very valuable information to me. My time is all taken up with the cares of business. There are but few leisure moments (in fact, leisure in the life of the druggist is one of the things which has to be taken in small doses), but I can take time to read my journals, and look forward with a deal of pleasure to their arrival. I find the time given to their perusal well spent, and the valuable information obtained more than repays me for the time and money spent in so doing. Then take into consideration the quotations and changes in prices of druggists' goods to be found in each issue, which to a careful buyer are of great value; also the formulas, suggestions in regard to conducting business, and articles published on various subjects, all of which are of great value to the druggist. I would as soon think of conducting or trying to conduct the business of the pharmacist without a pharmacopoeia, a dispensatory, or other books of reference, as without a pharmaceutical

journal. The writer would urge upon every pharmacist, every assistant, every student, the great value of the pharmaceutical journals, and the imperative need of taking some of them; read them, and read them for information and knowledge, which will at some future time, if not at the present time, more than repay you for the time given to their perusal. In no way can you invest so small an amount and get such good and valuable returns.—*American Drug and Chemical Record.*

A Water Bath for Making Ointment of Zinc Oxide.

At a recent meeting of the King's County, N.Y., Pharmaceutical Society, which is reported in our news columns, W. C. Alpers, of Bayonne, N.J., described a water bath which he uses for melting and bottling petrolatum ointments.

The bath consists of two cylindrical tin cans, the inner having a capacity of about a quart, and being provided with a cover. The inner can is suspended by means of tin straps at the top in the centre of the outer can, with a space of about $\frac{1}{2}$ or $\frac{3}{4}$ all round between the sides and the bottoms of the two cans. The inner can, which contains the ointment or oil, is fitted with an outlet tube at one side and at the bottom of the can, and this tube passes through the outer can and is provided with a stop-cock.

Mr. Alpers stated that he had found the can very useful in bottling all kinds of ointments, and also in bottling castor oil during cold weather. He had furthermore found it to be of service in preparing oxide of zinc ointment. For this purpose he first triturated the oxide of zinc to a smooth paste with a small quantity of lard oil. He then placed in the water bath the requisite amount of benzoated lard, to which he added a little wax to compensate for the oil used in making the paste, and applied heat until the whole was melted. This he allowed to run in a small stream into the mortar containing the zinc paste, stirring constantly until the whole was mixed to a uniform consistence. By a proper adjustment of the temperature and of the rate of flow the ointment will be stiff enough to leave alone by the time the last of the melted lard is incorporated.—

American Druggist.

The Toilet Water Business.

By H. L. GRIMES, Ph.G.

The desire for luxuries seems inherent with nine-tenths of the people, especially the gentler sex, and there is nothing that goes further towards satisfying this desire than the use of some refreshing toilet water in the bath. There is a growing demand for this class of goods, and as the margin of profit is good, particularly if you make them yourself, it is to the druggist's interest to give this part of his stock more attention than it generally receives.

It is necessary, of course, to keep in stock such toilet waters as are advertised and well known to your customers, but a supplemental line of your own goods will find a ready sale at such prices as you wish to establish, regardless of cutters and outside dealers.

One of the best methods of introducing a line of toilet waters of your own make is to put up samples in 1 or 2 dram homeopathic vials neatly labelled. When you wrap up a parcel of goods for a lady customer, include one of the samples, call her attention to it, and ask her to kindly compare your sample with any she has used. It is also a good plan to supply the first class barber shops in your neighborhood with liberal samples, say, a 2-ounce bottle of any one water, or two 1-ounce bottles, each containing a different water. The best shops use considerable quantities of such preparations, and, by a little push at the start, the druggist can supply the goods and make the profit which now goes to the barbers' supply houses.

A secondary benefit to be derived from the introduction of your toilet goods to the barbers is due to the proverbial penchant the knights of the razor have for conversation, and, as one topic is as good as another about the barber chair, your goods will be likely to receive favorable comment and be recommended by the shaver almost every time he applies them to a customer's face.

To give formulæ for a complete line of toilet waters would require more time and space than are at our disposal in this article. We append formulæ for two preparations that prove popular with a discriminating trade and yield a satisfactory profit:

LAVENDER WATER.

Oil lavender flowers 2 drams
Alcohol 1 pint
Rose water 6 fl. ounces
Magnesium carbonate $\frac{1}{2}$ ounce
Caramel, sufficient to color.

Rub the oil with the magnesium carbonate, add the alcohol and rose water, then sufficient caramel to give a light brown color. Filter through paper.

We have seen lavender water that was without color except the slight shade imparted by the oil, but the color given by the caramel impresses the eye as an indication of strength in the preparation. The color may be omitted if preferred.

A superior article that takes the place of ordinary bay rum is made as follows and sold under the name

ORANGE RUM.

Essential oil of almonds 32 drops
Extract vanilla 1 fl. ounce
Alcohol 12 fl. ounces
Water sufficient to make 2 pints.
Tinct. cudbear, enough to color.

Dissolve the oil in the alcohol, add the extract vanilla, water, and tincture cudbear. Shake well. If not perfectly clear, rub with a little carbonate of magnesia and filter through paper. As a rule, it does not require filtration. This rum can be profitably sold at 50 cents per pint.—*The Spatula.*

*Read at the meeting of the Connecticut Pharmaceutical Association.

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

MARCH 16TH, 1896.

Who Shall We Buy From ?

This is a thought which frequently occurs to numbers in the drug trade, particularly in view of recent events.

The manufacturing chemist supplying the physician direct, the jobber supplying the departmental store, the patent medicine manufacturer catering for the trade of the price-cutter, all these have engaged the attention of the druggists of Canada, and have engendered a feeling of distrust and antagonism in many quarters. But it is not of these that we would speak in this article, but of the system which every merchant should as far as possible adopt, and for which we hope to give good and sufficient reasons. It is an almost undisputed fact that the firm which carries the best stock of goods, the most varied in character, the newest designs, and who sells the cheapest, is the one which tells you most about it through the use of printers' ink.

How can the growth of such wonderful business houses as Wannamaker's, Lord & Taylor's, Marshall, Field & Co.'s, and hosts of others, be accounted for unless from the fact that they have been regular and persistent advertisers. They had the goods, they let the people know they had them, and as a consequence they sold them. That has been their policy in the past, and it is their policy to-day. And yet few people would buy from them merely because they advertised unless they were able to procure them at least as cheaply as elsewhere.

And this is the fact that we desire to point out, that the advertiser must of necessity have the stock to meet the demand, or his advertising would be useless; his prices must be as reasonable as others, or he could not retain his customers; and his ability to serve them is apparent from the fact that the patronage given him justifies him in continuing his advertising. Thus the persistent and judicious advertiser has these three strong points in his favor: He carries the quantity and variety of stock necessary, his prices are right, and his capability of doing the business fully proven; but there is still another point, and that we think applies very forcibly to the matter of advertising in trade journals. The advertiser solicits

your trade through the columns of your own medium, is in touch directly with the necessities and demands of the times, is awake to the fact that the dealer must have whatever is new and profitable, and is able to sell at prices which must command business, and all these through the increased business secured from his advertising. The policy, then, of every business man should be, "Buy from the advertiser."

Business Methods.

Business and its methods have changed very materially during the last few years. Old methods have been in a great measure set aside, and new plans, new schemes have been improvised, and some of them permanently adopted, at least until such time as in the order of events, which nowadays move so rapidly, something else takes their place for a period of existence, that period depending solely on the adaptability to the fluctuating demands of the times. The druggist has generally been considered very conservative in his business methods, holding on to all the customs and traditions of the apothecary of the olden times, innovations being steadily resisted and alliances frowned down upon. But comparing the drug business of to-day with that of fifty years ago, there cannot but be observed the marked contrast. No longer can the druggist quietly and with perfect indifference look on business around him as something with which he has nothing to do, nor can he ignore business methods adopted by others. The feeling of security which many have felt, in the environments of their *profession*, by ancient custom, by a sort of acknowledgment of superiority over "the trades," or, in later days, by legislative enactments, has in a large measure disappeared, and in its place there is now a feeling of insecurity or anxiety as to what the future has in store, and whether changed methods in all business matters do not require more practical and progressive methods in the manner of conducting a drug business.

This transition of trade is, however, not without its benefits and its lessons. One of the most direct benefits resulting from this state of affairs is the necessity that has become apparent for a thorough business training, and an adaptation of the individual to the necessities and demands which progressive business methods bring with them. No man, no matter what his ability in other directions, can make a suc-

cess of business if he lacks business training and business ability. He may stand first on the roll of honor of his college; he may be the happy recipient of gold and silver medals; he may be able even to teach any subject in the curriculum of the studies which he has mastered; still, unless he is possessed of the knowledge of conducting business as it is done nowadays, unless he knows how to deal with all classes of people, having this knowledge intuitively or acquired, he cannot and will not make a success of the drug business.

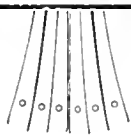
Success, in the sense in which most of us are inclined to take the meaning of the word, is financial prosperity, and to gain this we must be prepared to cope with others who are, in their respective lines, aiming at the same goal, striving for the same prize, a thing which they cannot obtain without a knowledge of how to set about it.

The man, therefore, who would make a success of the drug business must, like other business men, study the ways of modern business, adopt its methods as far as they are honorable and safe, and be progressive in everything. The young men just entering on their business careers should see that their education does not stop merely at what is taught within the portals of the college, but should post themselves thoroughly in business methods, and not find, too late, that though the head is full of pharmacy the lack of business training has produced an empty pocket.

The Largest Chemist's Shop in the World.

The pharmacy of Karl J. Ferrein, of Moscow, Russia, is the largest in the world, it is thought. As many as 1,200 prescriptions are put up in a day. The dispensing is done in a glass domed room, where twenty four or more assistants are employed, and a clerical and apprentice force nearly as numerous gives a portion of its time to the reception, entering, and delivery of the goods ordered and prepared. If poisonous ingredients enter into the composition of a medicine to be prepared, the checking of weights is done by a weigher specially appointed for that purpose. Two hundred and ninety-three men and boys find employment in the retail and wholesale departments of the establishment. The average number of prescriptions is not far from 300,000 annually. The founder died in 1887, but his two sons perpetuate their father's name and methods of business.—*Monthly Magazine of Pharmacy*.

A Few Reasons



why every druggist should handle our

Aromatic Cascara

S. & M.

Our Specialties . . .

Aromatic Cascara

Bitter Cascara

Vitalic Hypophosphites

Calisaya Cordial

Syr. Trifolium Co.

Apodyna

Bindshedler's Phenacetin
and Phenazone
(Antipyrin)

1. It is quite palatable.
2. One minim represents one grain of prime three-year-old Cascara bark.
3. Its small dose—10 to 30 min. We guarantee that it contains no foreign laxative or cathartic.
4. The price is reasonable and consistent, with purity and accuracy.
5. It is the most economical Cascara on the market.



Write us for sample by mail



MANUFACTURED BY

Scott & MacMillan

MANUFACTURING PHARMACISTS

14 and 16 Mincing Lane, Toronto, Can.

Manufacturers of

. . . . Perfumes

. . . . Toilet Waters

etc., etc.

Agents for

Andrew Jergens Toilet
and Medicated Soaps

Retail Druggists

© **W**E put up our Y & S Licorice in cases of 125, 50 and 25 lbs. bulk (loose, in leaves), 4's, 6's, 8's, 12's, and 16's to pound. Will sell rapidly if displayed prominently in your show windows, and will insure you large profits.



WE ARE ALSO MANUFACTURERS OF

Acme Licorice Pellets

Y & S Licorice Lozenges

Tar Licorice and Tolu Wafers .. and ..

Pure Penny Stick

If you cannot get the above at your jobbers, please address us as below :

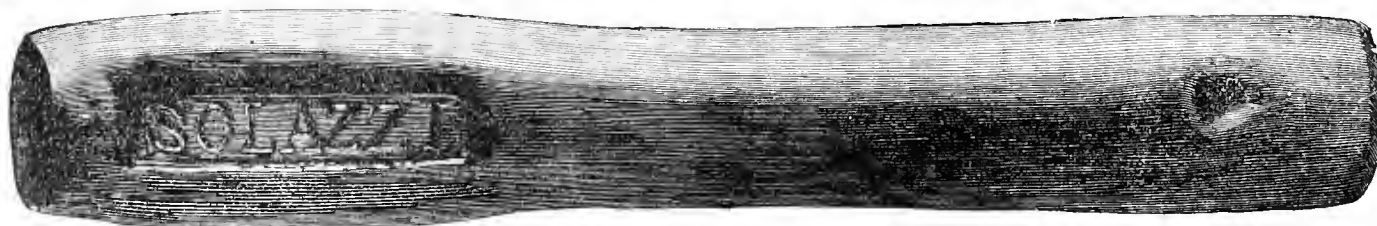
YOUNG & SMYLLIE

Brooklyn, N.Y., U.S.A.

“Solazzi”

THE CHEMISTS' BRAND

Liquorice Juice



The Testimony of “The Lancet”

The following is from “The Lancet” of March 30th, 1895 :

“The above brand has long been known to be of standard purity. We found the specimen to be completely soluble in water, and entirely free from impurities of any kind. It is, therefore, well adapted for the pharmaceutical purpose for which it is so useful, while as a popular demulcent it is both safe and reliable.”

Recommended also by “The British Medical Journal,” “Health,” “The Chemist and Druggist,” “Food and Sanitation.”



ASK FOR SHOWCARDS AND HANDBILLS.

Window Dressing.

Is there any longer a shadow of doubt as to the trade-bringing potentiality of a dressed window? Those who have tried its efficacy as a means of drawing trade are enthusiastic. We consider the store-keeper's window his cheapest advertisement. In his window he can display the goods with or without prices, as he deems best. Is not the dealer's window his sign of cleanliness, thrift, taste, and business enterprise? The window stands there, gazing out upon the particular spot wherever located. It stands there, no matter where its owner may be, continually enticing the public to the spot. Window advertising catches a class of custom that is well worth the baiting. There is also a trade caught by attractive window advertising that would never materialize were it not for the show; just as the huckster creates an appetite that would never have been developed were it not for the polishing of his red-ripe apples.

The style of the window is the first thing to consider. In this connection we may say that it is one of the requisites of a good trade, where there is any sort of intelligent competition, that there be a maximum of unbroken window-glass in the store front. If the front is a single one, say, twenty-two feet, the best disposition to make of it is to place the door at one side, and make one window. By all means let the store front be a light color, even if the paint has to be applied twice a year. It suggests neatness on the inside. A pale cream with gold lining is one of the latest and most tasteful things in colored fronts.

The lettering on the windows is a thing worth attention. The old style of white enamelled letters is not bad, but one of the new things is a gold script, a thick letter some half an inch or more deep. The lettering should not interfere with the display.

The custom of keeping stores open late in the evening is still prevalent, and there is no better time for a display, if the window and store be well lighted. If your store is situated on a prominent thoroughfare, where a great many persons are likely to pass after sundown, the windows should be well lighted, so that the goods in them may be viewed, and so that the advertising value of your window may go on while your store is closed. As bearing on the matter of lighting, it would be well if the backs and sides of each window were lined with mirrors. Nothing can be more effective or give more light, and at the same time do away with all clumsy draping to hide the wooden backs or partitions. For artificial light, of course electric lamps are by far the best and safest; but where these cannot be had there are many covered lamps that are very effective.

As a rule, windows are overcrowded, and various classes of goods are indiscriminately mixed, whereby the eye becomes confused, and the mind is unable

to grasp any particular object shown. Do not dress too high up, and let any special line or bargain be, as near as possible, on a level with the eyes of the passerby. All price tickets and descriptions should be plainly written, with as little ornamentation as possible, and in a color to suit the goods.

The window dresser must keep in mind the object in view, and be guided accordingly. He aims to set forth a fair sample of the goods to be found within. They must be so displayed as to prove an attraction to the people upon the street, most of whom are intent upon going somewhere else. Their attention must be diverted from their original purpose. To do this the goods displayed must be of such a character as will appeal with force to the purchaser at the time. In a word, the window must be dressed with seasonable goods.

Every legitimate method for attracting the attention of those who pass your way must be used. The ways by which you can get the people of your town in sympathy with your methods are numerous. First of all, you must be sincere and try to please. Then keep up with local and current history. If a new opera or theatre troupe is coming to town, the event will be talked about a week or so before it comes off. Now, if you could secure portraits of the leading members of the troupe and place them in your window, people would feel grateful to you.

The general success which comes from window dressing is enough to warrant a merchant in going to any expense necessary to make his display effective. The display should be made first-class in every particular. Nothing should be left half-done, and nothing should be left undone. Even if your window is expensive, it will pay for itself twice over if it is properly made.—*Keystone*.

The Pharmacist's Capital.

The *real* pharmacist's capital is his scientific-technical training, knowledge, and skill. The merchant-druggist's capital must consist of thousands of dollars if he is to be a successful man; but he might succeed very well as a merchant without the least scientific-technical training for the practice of the profession of the true pharmacist, if he only possesses that kind of ability and industry which makes the successful merchant. But he who tries to practise pharmacy without sufficient pharmaceutical education is simply trying to do business without capital. As between the cash capital really needed to practise legitimate pharmacy without miscellaneous merchandizing and that required to carry the miscellaneous merchandizing of the average drug store without pharmacy, the conglomerate business of selling patent medicines, tobacco, soda water, toilet goods, candies, etc., requires ten times as large a capital as would be

required for really pharmaceutical practice.

The furniture, fixtures, apparatus, stock, rent, and pay-roll of a paying corner drug store doing the usual miscellaneous trade of the merchant-druggist call for large capital, great financial ability, the closest attention to business, and no "let up." But the professional pharmacist who is content to let patent medicines, tobacco, and soda water alone, who will serve the physicians and the public in all matters legitimately belonging to scientific pharmacy and medical and sanitary chemistry, and who has the thorough training necessary for that purpose, can get along very well without a corner store, and, in fact, without any store whatever; without expensive and showy furniture and fixtures; without a heavy, treacherous, shifting stock; without "slaving" day in and day out for the benefit of his landlord; without a force of clerks and salesmen wholly out of all reasonable proportion to the net profits of the business; and without being on duty eighteen hours a day, Sunday included.

Revolve this in your mind.—*Bulletin of Pharmacy*.

Advertising Axioms.

By J. WALTER THOMPSON, of New York.

The reward of the faithful advertiser is certain.

Man advertises and the people make purchases.

"Many men, many minds." Many ads. in many publications, many buyers.

The name and quality of good goods can be advertised so as to be "more lasting than brass."

Make your ads. speak the truth boldly, and the people will appreciate your frankness and respond.

"From nothing (in the leading publications) nothing comes." From *something*, however, results are sure to come.

"May his fame endure forever"—the advertiser who advertises with sensible copy that appeals to the sense of the people.

Modern Medicine.

An English pharmacist has compiled the appended list of modern forms of pharmaceutical medication, which he regards as a record of the present fashion in medicine: Bronchubes, cachets, capsuled pills, capsules, compressed tablets, globules, lentiforms, lenticules, oviform pills, plastic pills, perles (pearls), pellets, pastilles, palatinoids, bipalatinoids, parvules, pilules, perloids, soloids, tabules, troches, tropels, tablets, tabloids. "With power to add to their number."

If you neglect your business, you will soon have no business to neglect.

When you get a good thing hang to it like a nigger preacher to a striped watermelon.

Lanolin Preparations.*Lanatoilet Milk.*

Borax.....	1	gram
Castile soap.....	0.25	"
Adeps lane.....	10.00	grams
Aqua rose.....	89.00	"

Cold Cream.

Expressed oil of almond.....	15	grams
Rose water.....	15	"
Lanolin.....	20	"

Crème Céleste.

Lanolin.....	15	grams
Petrolatum.....	15	"
Orange flower water.....	15	"
Terpineol.....	10	drops

Ointment for Application to Hands.

Boric acid.....	2.5	grams
Zinc oxide.....	7.5	"
Lanolin.....	25.0	"
Olive oil.....	15.0	"

Cucumber Cream.

Expressed oil of almond.....	5	grams
Fresh juice of cucumber.....	30	"
Lanolin.....	15	"
Vanillin.....	0.5	"

Cooling Ointments.

(1) Lead water.....	25	grams
Lanolin.....	20	"
Olive oil.....	5	"
(2) Lime water.....	30	"
Lanolin.....	20	"
Petrolatum.....	10	"
(3) Thiol (liquid).....	2	"
Distilled water.....	25	"
Lanolin.....	20	"
Olive oil.....	3	"
(4) Borax.....	2	"
Distilled water.....	50	"
Lanolin.....	30	"
Petrolatum.....	18	"

Unguentum Hebre.

Lead plaster.....	10	"
Lanolin.....	7	"
Petrolatum.....	3	"

Deck Pasta.

Zinc oxide.....	10	"
Olive oil.....	10	"
Lanolin.....	10	"

Sulphur Paste.

Zinc oxide,		
Precipitated sulphur,		
Silica (infusorial earth), each.....	10	grams
Olive oil.....	20	"
Lanolin.....	15	"
Distilled water.....	35	"

—Geo. Muller, in *Monatsh. f. Prakt. Dermat.*

Peanut Oil.

The report of the American Consul at Marseilles contains some facts concerning the manufacture of peanut (arachide or ground nut) oil, which is largely coming into use for various economic purposes. Extraction of oil from peanuts is rapidly increasing, no fewer than seventeen factories being at present engaged in the industry, and the quantity of nuts imported at Marseilles for this purpose is increasing rapidly every year. The general method of producing the oil is as follows: On arriving at the factory the peanuts are first placed in a machine of the nature of a "winnowing," in which all outside dirt and other foreign substances are

removed. Having been thus superficially cleansed, the nuts are conveyed by an Archimedean screw to the shelling machine, where they are deprived of the shells. Thence the nuts fall into the first triturating machine, consisting of a pair of cast-iron rollers, where they are coarsely ground, and at the same time any foreign bodies, stones, etc., are by an ingenious arrangement rejected. From this machine the meal passes to another, where it is again ground finer, and thence into a long hexagonal case forming a sieve, through which the fine meal passes, while the coarse is sent back to the rollers again. The meal is then pressed in "scourtins" make of horsehair, a pressure of 2,850 pounds to the square inch being exerted, and left on for an hour, which is sufficient to extract all that can be obtained in the first yield. The meal is then removed from the "scourtins," ground a second time, heated to a temperature of about 158° F., and a second pressing is effected. If oil of a very fine quality is required the nuts are crushed only once, partially ground nuts yielding a smaller but finer product. The yield varies according to the quality of the nuts. Mozambique nuts produce about 50 per cent. in the first pressing, and the value is from about 28s. to £2 per hundredweight. The second pressing yields about 12 per cent., the value of which is from 18s. to £1 per hundredweight. The oil is largely devoted to the manufacture of white soap, for which it is highly prized. It is also used as salad oil, and in the composition of margarine. Large quantities are sold as olive oil. A smaller amount is used for illuminating purposes. The cake left after pressing is particularly rich in nitrogen, and forms an excellent cattle food, and commands a price of about 5s. if made from shelled nuts.—*Oils, Paints, and Drysalteries.*

The Examination of Disinfectants.

By H. M. KAUFFMAN, B.S.

There are a number of disinfectants on the market of more or less value, and it is the object of this paper to give the dealer and consumer some method of determining the relative value of these various products. Infections are caused by various kinds of bacteria, but all these bacteria do not thrive under the same conditions. A substance may form an excellent medium for the growth of one kind of bacteria, while it may be positively fatal to other kinds. So, in determining the value of a disinfectant, it is necessary to determine its effect upon specific forms of bacteria.

Although the chemical constitution and strength of a disinfectant can be determined by chemical means, it is necessary to resort to a bacteriological examination in order to be certain of its value as a disinfectant. A bacteriological examination may be conducted as follows:

A series of test tubes are filled with solutions of disinfectants of different

degrees of strength, and in each of them is placed a silk thread impregnated with some specific form of bacteria (e.g., bacterium coli). At the end of definite intervals of time the threads are removed, washed with sterilized water, and placed in a culture medium of gelatin or agar. The culture tubes, containing the culture medium, are then placed in a sterilized chamber until the bacteria shall have had time to develop. If the solutions are strong enough, and if sufficient time be allowed for the action of the disinfectants, no colonies of bacteria will be found; but if, on the other hand, the solutions were too weak, or if the time for the action of the disinfectant be too short, numerous colonies of bacteria will be found. In every case it will be found that in a certain strength of solution the bacteria will thrive, while in a somewhat stronger solution they will be killed. Thus, a solution of one part of thymol in three thousand of water will prevent alcoholic fermentation, but if the solution be diluted to one in thirty-five hundred the fermentation will proceed. A solution of one part salicylic acid in one thousand parts of water will prevent fermentation, but if diluted to one in twelve hundred fermentation will take place. A solution of one part thymol in three thousand of water is the weakest solution of that antiseptic that will prevent fermentation, while a solution of one part of salicylic acid in one thousand of water is the equivalent strength of that solution for hindering fermentation.

Therefore, it may be said that thymol has three times the disinfecting power of salicylic acid. In a similar way all antiseptics may be compared. The following table gives the minimum strength of some well-known antiseptics that will prevent alcoholic fermentation:

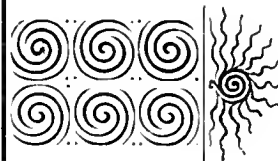
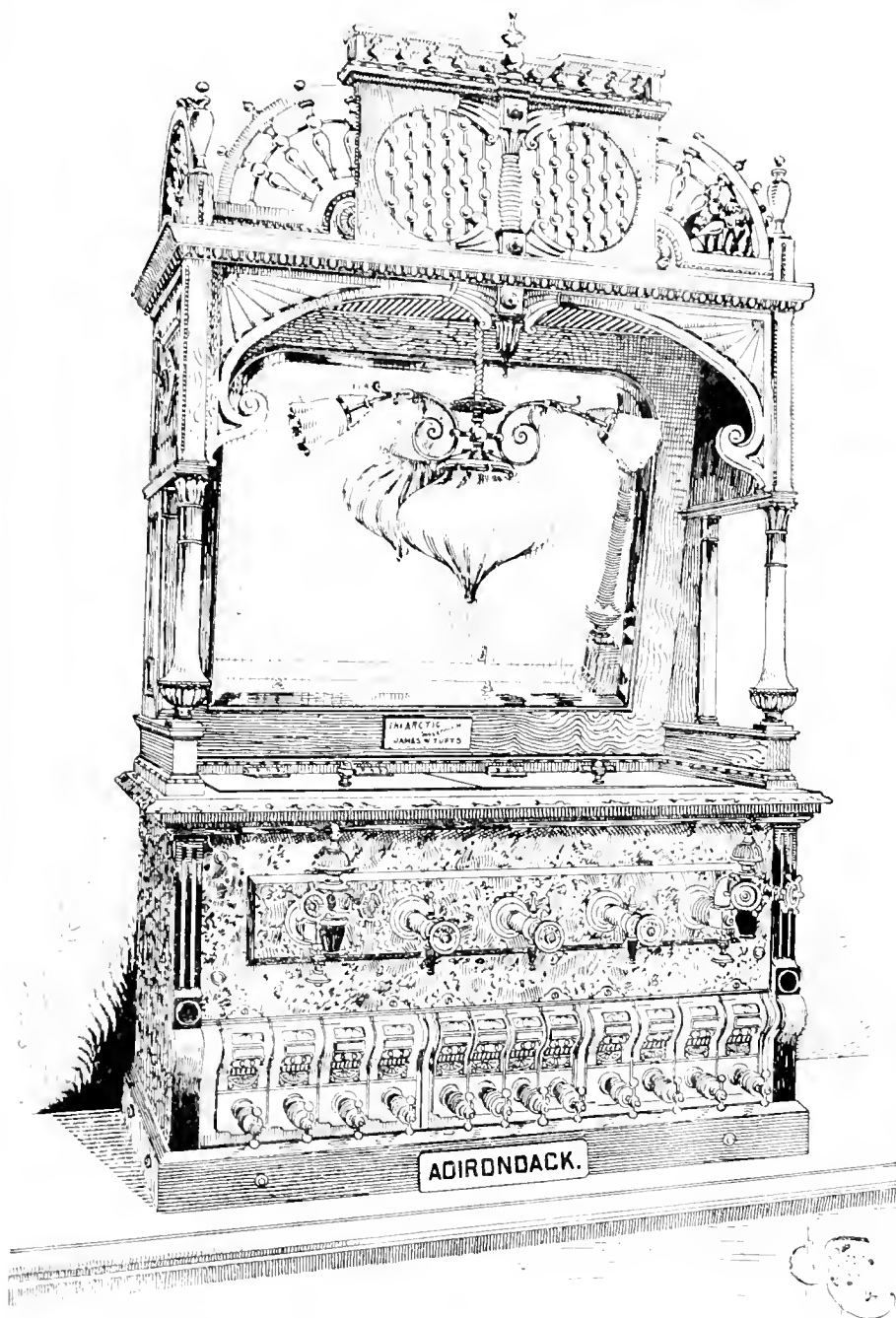
Antiseptic.	Weakest concentration to prevent fermentation.
Corrosive sublimat.....	1.20000
Potassium permanganate.....	1.10000
Copper sulphate (blue vitriol).....	1.4000
Bromin.....	1.3000
Thymol.....	1.3000
Benzoic acid.....	1.2000
Salicylic acid.....	1.1000
Quinine.....	1.400
Carbolic acid.....	1.200
Sulphuric acid.....	1.100
Resorcin.....	1.100
Pyrogallol.....	1.50
Boric acid.....	1.25
Chloral hydrate.....	1.25

—*Paint, Oil, and Drug Review.*

Bitterless Cascara Sagrada.

The extended use of Rhamnus Purshiana, or Cascara Sagrada, as it is more usually termed, has led to frequent attempts to improve the various pharmaceutical preparations of this valuable drug. The researches of various investigators have proved that the laxative properties of the bark are undoubtedly due to principles similar in their medical properties, and, to a considerable extent, in their chemical composition, to those contained

Tufts Fountains



My Soda Water apparatus for 1896 is far in advance in beauty of design and practical construction.

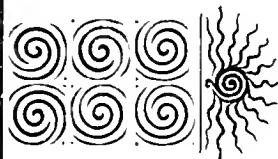
Do not delay, but place your orders at once, that delivery may be made in time, so that you will be in position to take advantage of the early hot weather in April and May.

Do you remember that I introduced the drawer can?

Have you noticed that every manufacturer of soda apparatus is selling some form of drawer can?

Is the imitation ever equal to the article imitated?

I have patent infringement suits now pending against five rival manufacturing corporations.



FACTORY: 33 to 51 Boulter, 50 and 51 Chardon, and 96 to 100 Portland Sts.,

BOSTON, MASS.

WAREROOMS:

NEW YORK: 10 Warren St., near Broadway and City Hall.

CHICAGO: 264 and 266 Fifth Ave.

ST. LOUIS: 1211 Pine St.

BALTIMORE: Cor. Lombard and Concord Sts.

SAN FRANCISCO: 212 Eddy St.

DETROIT: 254 Woodward Ave.

DALLAS: Cor. Commerce and Field Sts.

BOSTON: 96, 98 and 100 Portland Street, near Union Station.

Catalogue: In sending for catalogue customers will confer a favor by mentioning the CANADIAN DRUGGIST.

ADDRESS ALL COMMUNICATIONS TO **JAMES W. TUFTS**

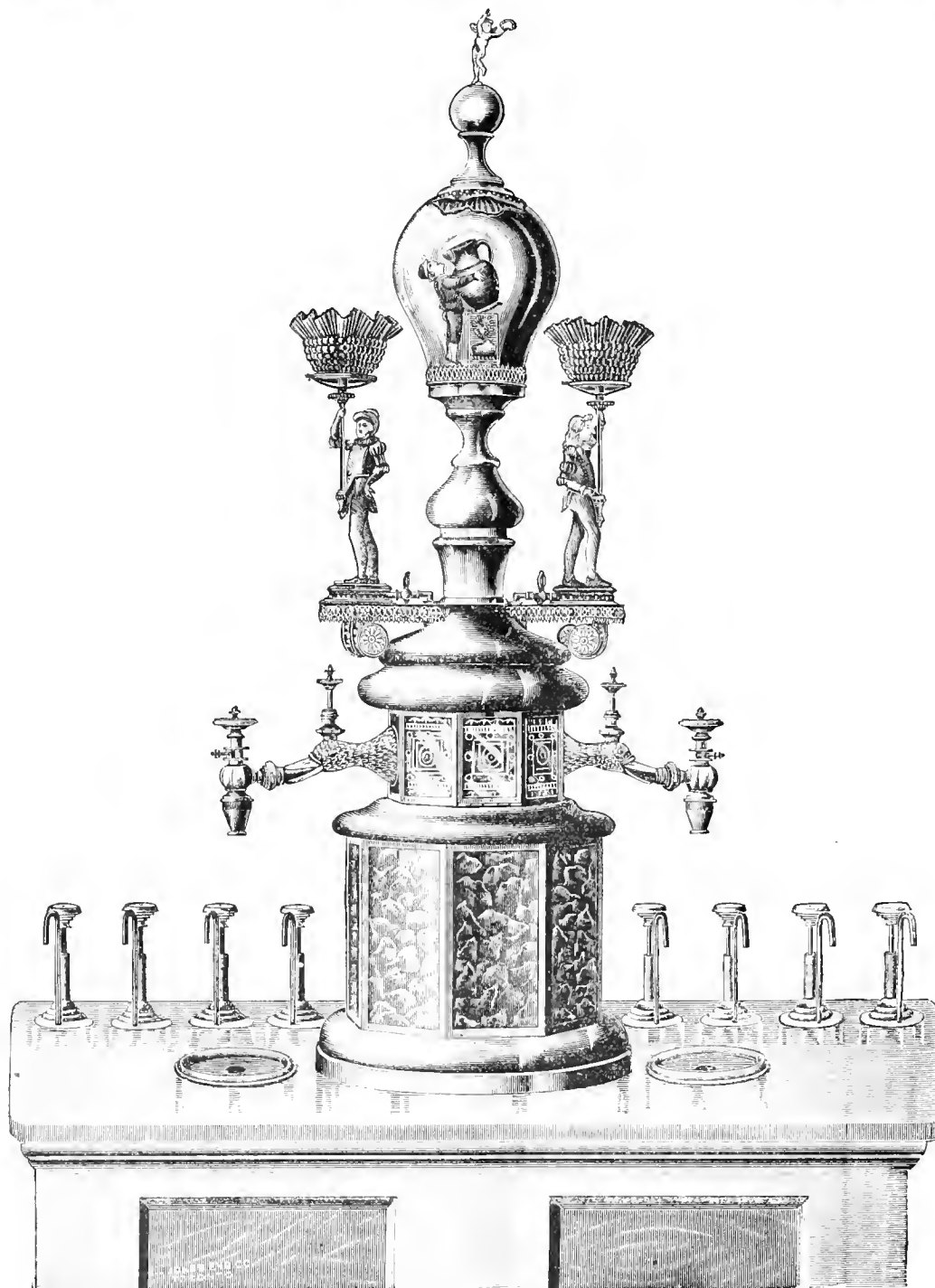
CANADIAN DRUGGIST.

The Fletcher Mfg. Co., = Toronto =

MANUFACTURERS OF

Soda Fountains, Generators, Cylinders, Freezers, etc.

MANY NEW DESIGNS IN MARBLE AND COUNTER APPARATUS.



OUR NEW CATALOGUE FOR 1896 NOW READY. MAILED ON APPLICATION.

"THE VENICE," New this Season.

Patent Pneumatic Syrup Jars fitted to our counter apparatus. Make the handiest and best thing ever invented for Druggists' use. Quality unsurpassed. Prices reasonable. Terms easy. Fountains exchanged.

DEALERS IN PURE FRUIT JUICES CONTAINING NO ADULTERATION.

FLAVORING EXTRACTS, COLORS, ETC.

FACTORY : 440 AND 442 YONGE STREET, TORONTO

PUFFER'S

Onyx and Marble Soda Water Apparatus

Our designs for 1896 are handsomer than ever.

If you want a Soda Fountain which works easy, wears well, and keeps its fine finish, buy

**Puffer's
New Style
Apparatus**
with
SLIDING SYRUP CANS

**Prices Reasonable
Terms Easy**

LIBERAL ALLOW-
ANCE FOR OLD AP-
PARATUS IN EX-
CHANGE.



Our SLIDING SYRUP CANS are the best in use

Our COOLERS the most substantial and effective.

Our INSIDE FITTINGS the most practical and complete.

ILLUSTRATED
CATALOGUE
Mailed free on request

**Extracts
Flavors
Fruit Juices**

Of the best quality
at lowest prices.

Branches :

39 and 41 CENTRE STREET, NEW YORK
264 FIFTH AVENUE, CHICAGO
1800 MAGAZINE STREET, NEW ORLEANS

A. D. PUFFER & SONS
38 to 48 Portland St.
BOSTON, MASS.

TAR SOAPS



MADE BY
THE ALBERT TOILET SOAP CO'Y

Are the best sellers in the market.

BURTON'S ALL-HEALING TAR AND GLYCERINE

Tinfoil outside and inside wrapper. One doz. in box. Specially made for shampooing.

Used in all the Maternity Hospitals

MASTER MECHANICS' In Tinfoil and Carton. In boxes of 1 dozen, and cases of 50.

PINE TAR Tinfoil and Carton. One-dozen packets.
A popular 5-cent article.

CONFIDENCE in the merits of the goods you sell is an important element of success.

Johnston's Fluid Beef

an always be sold with the most absolute guarantee that it is the best Beef preparation.

We will back you up in this statement to the fullest extent.

The JOHNSTON FLUID BEEF CO., - MONTREAL.

"THE LANCET," "BRITISH MEDICAL JOURNAL," and "THE OPTICIAN," strongly recommend

DENTON'S New Patent "Acme" Lens-Front Clinical Thermometer



STILL MORE EASY TO READ.
INDEX AND SCALE IN THE SAME PLANE.
WILL NOT ROLL.
INDELIBLE ENGRAVING.

WHOLESALE ONLY AT

25a Hatton Garden, London, England.

RUBBER GOODS

AT RIGHT PRICES

OUR LINE OF

ENEMAS, TUBING, FOUNTAINS, ATOMIZERS, is very complete and prices right. Buyers can effect great saving by placing orders with us.

SURE-SELLING SPECIALTIES:

CARSON'S BITTERS

PECTORIA

SILVER CREAM

ALLAN'S COUGH CANDIES
1/4 gross Box at \$1 per Box.

SOAP BARK

In 5c. Packages, 1/4 gross Box, \$1 per Box.

Full lines of Sundries.

Mail orders promptly executed

ALLAN & CO.

132 BAY ST., TORONTO

A PERFECT TEA

MONSOON TEA

FINEST IN THE WORLD.
From Tea Plant to Tea Cup in its Native Purity.

PACKED BY THE GROWERS
And sold in the original packages, 1/2 lb., 1 lb. and 5 lb. caddies.

If your grocer has none, tell him to order from
STEEL, HAYTER & CO.
11 and 13 Front Street East, Toronto

BORINE

ANTISEPTIC, NON-TOXIC, FOR EXTERNAL
AND PROPHYLACTIC, NON-IRRITANT, AND INTERNAL USE.

FORMULA.—Borine is composed of the active constituents of styrac benzoin, guthieria procumbens, spiraea ulmaria, solidago odora, lammelia virginica, the steptropenes of thymus serpyllum, eucalyptus globulus, mentha arvensis, with boracic acid.

Borine possesses a fragrant odor and a very agreeable pungent taste. It mixes with water in all proportions, and is compatible with most of the preparations of the pharmacopoeia. It does

not injure or stain the most delicate fabric, and is therefore useful as a general disinfectant.

Borine is highly recommended as a Mouth Wash, as a Gargle, Spray or Lotion in inflammations of the throat, nose and mucous membranes; for Inhalation in croup, diphtheria and whooping cough; as a soothing and antiseptic application to wounds, burns, etc., and internally as a sedative, antifermentative and carminative in digestive troubles and in intestinal disorders.

SEND FOR LITERATURE & SAMPLES. BORINE CHEMICAL CO. N.Y.

QUEEN CASTOR OIL

ABSOLUTELY TASTELESS

QUEEN CASTOR OIL is prepared from the purest English Castor Oil by separating the disagreeable and nauseating principles without changing its medicinal action. These principles are extracted by an improved process and are not

covered up by added flavors. QUEEN CASTOR OIL possesses the same medicinal properties as the ordinary Castor Oil, with the advantage that it is pleasant both in taste and odor, does not become rancid, and is devoid of all griping action.

SEND FOR SAMPLES. QUEEN CASTOR OIL CO. BORINE CHEMICAL CO. N.Y. SOLE AGENTS.

Price List

BORINE, Large	-	\$7.50 per dozen
BORINE, Medium	-	4.00 " "
BORINE, Small	-	2.00 " "
QUEEN CASTOR OIL	2.00	" "
QUEEN CASTOR OIL	.75	" "

TRADE supplied by the WHOLESALE DRUGGISTS.

If, however, your wholesale druggist has not our preparations in stock, order direct.

Borine Chemical Company

21 WEST 23rd STREET

NEW YORK

in rhubarb and frangula. Cascara sagrada differs materially, however, from rhubarb on account of the presence of a bitter, crystalline principle. Meier and Webber assert that the drug also contains a ferment, to which is attributed the griping effects of the fresh bark, and there is little doubt that our pharmacopœia should insert in its definition a requirement that the bark should be kept at least one year after its collection before being used, as is the case with the definition of frangula bark. The bitter principle has been regarded by many as objectionable, and as interfering with the continued use of the drug as a laxative. The resinous constituents are, without doubt, the cause of the purgative action. The pharmaceutical problem which is presented, then, is to provide a preparation which will contain all the resinous constituents, but free from bitterness; and with this object in view, a process has been devised for making a powder which may be used for the liquid preparations, such as fluid extract, tincture, syrup, etc.

BITTERLESS POWDERED CASCARA SAGRADA.

	Grammes.
Take of powdered cascara sagrada.....	500
“ licorice root.....	110
magnesia (calcined).....	10
powdered cloves.....	5

The powders are thoroughly mixed, transferred to a “power kneader,” and then moistened with sufficient water; after being thoroughly kneaded, the mass is transferred to a closed drying chamber, and subjected to a uniform temperature of 180° F. for forty-eight hours. The moisture is then permitted to escape from the chamber, and the powder thoroughly dried, after which it is repowdered and sifted.

It will be observed that aromatics are added with a view to improving the taste, and the preparations made from the powder are free from bitterness, whilst the laxative properties are unimpaired.—*Henry B. Gilpin, in American Journal of Pharmacy.*

A Tasteless Quinine Compound.

Wendt communicates to the *Rundschau* the following formula for a tasteless quinine compound:

Dry 3 parts of free basic quinine, at 125°C., and heat the residue with 4 parts of iso-valeryl chloride in the water bath until complete conversion takes place. The result of the reaction is treated with hot water acidified with hydrochloric acid, and the solution supersaturated with ammonium hydrate in the cold. The precipitated quinine ester is taken up by shaking with benzol, and the latter solution evaporated, leaving a residue of iso-valeryl quinine. The iso-valeryl quinine is an amorphous hygroscopic body which gives the thalleioquin reaction, readily soluble in acids in excess, alcohol, ether, and benzol. Its neutral salts are difficultly soluble in water, but the acid

salts are exceedingly soluble in that element, and the solutions are fluorescent. The body is saponifiable by heating with alkalis.

If an equivalent quantity of salicylic acid be poured into an ethereal solution of iso-valeryl quinine, salicylic iso-valeryl quinine is, in a little while, thrown down as a precipitate. This combination crystallizes out of alcohol uniform leaflets, but on allowing it to crystallize very slowly, at ordinary temperature, it forms large, beautiful tablets of great regularity. It is water-free and permanent in air and light, difficultly soluble in water, but dissolves with ease in alcohol and benzol. The melting point of the body is 202°C. It is entirely tasteless, and its content of the heart and stomach strengthening principles of valeric acid should give it considerable prominence in medicine. We understand that the foregoing process has been patented in Austria and Germany.—*National Druggist.*

The Examination of Creosote Capsules.

The necessity of examining the contents of the various ready-made capsules on the market has frequently been dwelt upon, and such examination frequently shows very wide differences between the contents of the capsules and the statements as to the contents which appear on the labels. The following method of examining capsules containing creosote, which was recently suggested by Sapin (*Rep. de pharm.*), will therefore prove of considerable interest:

Macerate 50 of the capsules of examination for several hours in barely sufficient cold water to cover them, and then heat carefully until the gelatin is dissolved. On cooling there will be two layers, the upper being oily and the lower gelatinous. Dissolve the oily layer in 25 c.cm. of ether; again liquefy the gelatinous mass by careful heating and allow it to cool, when the last traces of the oily creosote solution will rise to the surface and may be removed by a second portion of ether. By mixing the two ethereal solutions, evaporating and weighing the residue, the weight of the creosote present in the capsule and of the oil will be obtained. To separate these two, shake the residue twice with 10 c.cm. of alcohol (94 per cent.), which dissolves the creosote, while the oil remains behind. After pouring off the alcohol, heat the oil until the last traces of alcohol are driven off and weigh it. The difference between the figures thus given and the total weight of the residue after the evaporation of the ether will give the quantity of the creosote present.

This method is available for analysis of creosote solutions in oil, such as cod-liver oil, almond oil, peanut oil, and olive oil. The quantity of creosote found may occasionally be a little in excess of the actual amount present on account of the slight solubility in alcohol of some of the oils used.—*American Druggist.*

Cycling.

Within the present decade, after two or three generations of ineffectual experimentation, the art of riding on wheels has been brought to a practical success. Bicycles in the last few years have divided public attention with the electric lamp and the trolley car. Newspapers, medical journals, and popular magazines have teemed with articles concerning this new adjuvant to human muscle. Every variety of opinion is expressed by men, women, and scientists, as to the healthfulness, propriety, and fitness of the new locomotion for women, children, and others. One result, however, is apparent. The use of the wheel is rapidly extending, and is not likely to diminish. When the sewing machine was first introduced, it was much written against as an enemy to female well-being. That opposition has long since passed away. Common sense and medical skill met this danger. All women may not use the machine. Some may, perhaps nearly all. The physician should have a say. So in cycling. Some people should not venture; others will be wonderfully benefited. The doctor must be the judge, just as he should be in the gymnasium and the schoolroom. We all know that scores are injured by athletics, and that hundreds, perhaps thousands, are sacrificed in the schools. Yet the gymnasium and the school are indispensable, and along with them the skilled physician. Experience is teaching the necessity of this latter adjunct, and the medical inspector of schools is recognized as a factor in education in all advanced communities. The child has no business in school unless under medical supervision.

Man, woman, and child has no business on the wheel unless under medical supervision.—*Tennessee Health Bulletin.*

To the clerk: Your employer's interests are yours. By serving him honestly and industriously you best serve yourself, for a reputation gained for faithful and intelligent service is of all importance to you, and will stand you in good recommendation in other business connections and fields of labor. Without being officious, make yourself conversant with every detail of the business, and do not be afraid of work, even though some of it may be very distasteful. There is no disgrace nor loss of prestige and dignity if you occasionally demonstrate to the porter and the apprentice how their duties can best be performed.—*Phar. Era.*

NEITHER policy nor profit is found in intermittent advertising. The man who keeps his advertisement and business before the public constantly, systematically, and persistently, while just to his patrons, is he who reaps where he has sown, and reaps bountifully.—*Dubuque (Ia.) Trade Journal.*

The Science of Optics.

BY LIONEL LAURANCE,
Principal of the Optical Institute of Canada.

[Entered according to Act of Parliament of Canada, in the year 1896, by Lionel Laurance, at the Department of Agriculture.]

If the refracting medium be of such a form that its two surfaces, through which the rays must pass, be not parallel to each other, then it follows that no ray can be perpendicular to both of them, and, therefore, every ray incident to such a medium (that is not reflected) must suffer refraction.

An optical prism as AKL in Fig. 5 is a body having its two refracting surfaces AK and AL inclined towards each other; their point of junction A is called the apex, and the line KL joining the sides is called the base.

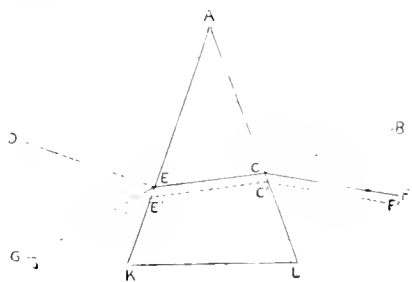


FIG. 5.

The perpendicular to the one surface AK is DE , and to the other AL is BC . If any ray such as FC be incident, as it passes from the rarer into the denser medium, it will be refracted at C in the direction CE toward the perpendicular, and again at E , as it passes from the denser into the rarer medium, it will again be refracted in the direction EG away from the perpendicular. Various rays, such as $FC, F'C'$, will retain their relative positions after refraction, emerging as at $EG, E'G'$. If the ray were incident in the direction perpendicular to the first surface, it would pass through the prism without deviation until it reached the second surface, when it would be refracted away from the perpendicular. If the ray were incident to the first surface in a direction perpendicular to the second surface, it would be refracted at the point of contact towards the perpendicular to the first surface, and again, on emerging from the prism, would be refracted away from the perpendicular to the second surface. In any and every case the refraction by a prism is such that the ray is bent towards the base.

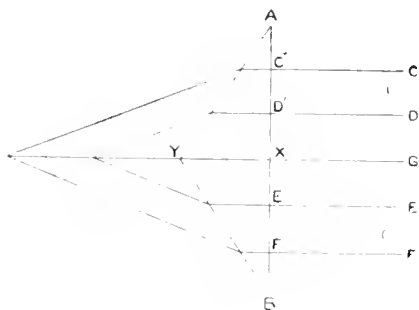


FIG. 6.

If two prisms AXY and BXY , in Fig. 6, be placed base to base rays of light such as CC', DD' , incident to the prism AXY , are bent towards the base of this prism, and rays such as EE', FF' , incident to the prism BXY , are bent towards the base of that prism, so that the rays refracted by the one meet the rays refracted by the other. The one ray GAX , incident at the point of junction of the two prisms, passes through without refraction, as, being already at the base at either prism, it cannot be bent more so.

What is true of two prisms placed base to base is also true of any number of prisms placed with their bases together.

In Fig. 7 there are three forms of convex lenses.

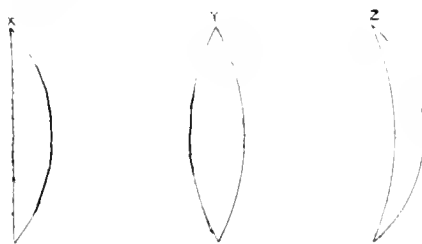


FIG. 7.

X is a plano-convex; it is flat on one side and convex on the other.

Y is a double convex; it is convex on both sides.

Z is a concavo-convex, generally called periscopic convex; it is concave on one side and convex on the other, but the concave is weaker than the convex.

These three lenses have exactly the same properties; they are thicker in the centre than at the edges, and they are practically formed of an infinite number of prisms with their bases meeting in the centre. All rays of light traversing them are bent inwards, that is, they are refracted towards the bases of the prisms of which the convex lenses are formed, with the single exception of the central ray that is incident at the point of junction of the bases; this ray, AB (Fig. 8), passing through the axis of the lens, is called the axial ray.

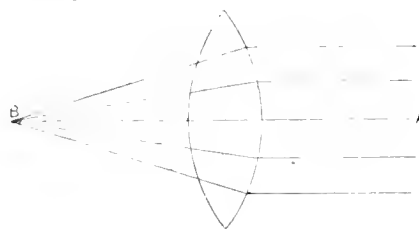


FIG. 8.

All the rays are so bent that they meet at B , which is the focus of the lens.

It will be noted that rays of light refracted by a lens are more bent by the peripheral or outside parts of the lens than by those parts that are nearer to the axis.

In the above and other figures the rays of light have to be shown as parallel to each other. As before stated, rays from a point incident to a lens (or to the eye) are really divergent, and are called a pencil of light.

When refracted and collected together at the focus, these rays are again seen as a

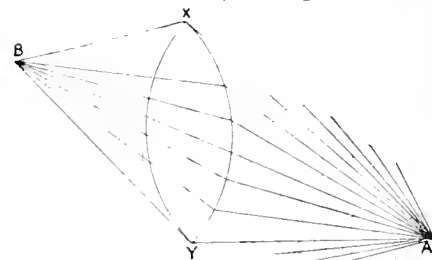


FIG. 9.

point. In Fig. 9 the rays diverge from the point B ; some of them fall on the lens XY , and are refracted by it to the point B , which is the focus of these rays.

In Fig. 10, there are three forms of concave lenses. X is a plano-concave; it is flat on one side and concave on the other. Y is a double concave; it is concave on both sides. Z is a convexo-concave or periscopic concave; it is concave on one side and convex on the other, but the convex is weaker than the concave.

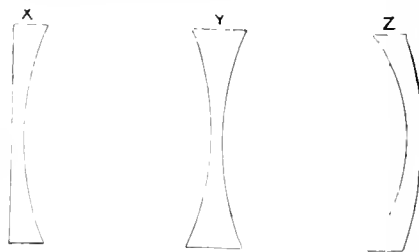


FIG. 10.

These three forms of concave lenses have exactly the same properties; they are thinner in the centre than at the edges, and they are practically formed of an infinite number of prisms with their apices meeting at a common centre and their bases outwards. All rays of light traversing them are bent outward, that is, they are refracted towards the bases of the prisms of which the concave lenses are formed, with the single exception of the central ray that is incident at the point of junction of the apices; this ray AB (Fig. 11), passing through the axis of the lens, is called the axial ray. As the refraction by a

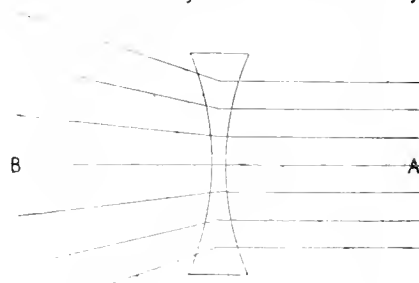
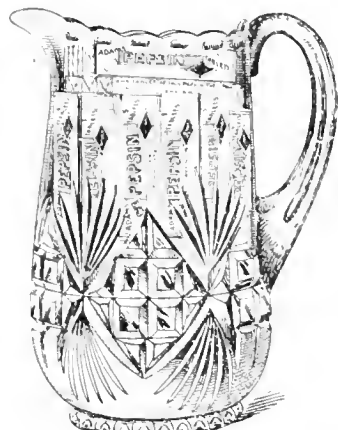


FIG. 11.

concave lens is outward, the rays are scattered, and such a lens can have no real focus.

A Clear Crystal Glass

PITCHER FREE...



Capacity : One-Half Gallon.

Containing the equivalent of five boxes of Pepsin Tutti Frutti. It is also packed with an assortment of half Pepsin and half regular Tutti Frutti. Order early from your wholesaler. Send postal card for new advertising signs for your window.

Adams & Sons Co.,
11 and 13 Jarvis Street,
TORONTO.

1873.

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Montreal Optical
6185 Notre Dame St., MONTREAL. **Company** 60 Yonge St., TORONTO.

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**TOOTH
HAIR
CLOTH
AND NAIL**

Brushes..

NAIL CLEANERS AND EAR SPONGES

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THE BEST FRENCH MAKERS

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Over one hundred sizes of each in stock, or on the way.

We are headquarters for these goods. (Can send samples to price by mail, or small range by express.)

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in America, and solicit enquiries.*

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by wholesale in

TORONTO, HAMILTON, KINGSTON, AND WINNIPEG

SIMSON BROS. & CO., Wholesale Druggists
HALIFAX, N.S.

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FLAVOR AND FRAGRANCE UNEQUALLED

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GIVE BEST OF SATISFACTION AND WILL INCREASE YOUR SALES.

We Sell to most Druggists
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Cigars and Cigarettes 5 cents

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Cigarettes 15 cents

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**KEEP
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AND

FOULD'S MEDICATED ARSENIC COMPLEXION SOAP

THE ONLY REAL BEAUTIFIERS OF THE
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H. B. FOULD

SOLE PROPRIETOR

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The LYMAN BROS. & CO.

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Although all rays of light in Nature are really divergent, and are so considered as they radiate from the inconceivably small luminous points to the various parts of the pupil of the eye or of a lens, still when they proceed from infinitely distant objects the amount of the divergence is so small that they are considered as parallel to each other. But there must be some distance that is the nearest point from which we can reckon the divergence of the rays to be so insensible as to amount practically to parallelism; this point is 20 feet, or 6 metres; therefore, in optics, those rays that proceed from objects 20 feet or more distant are called parallel rays, and those that proceed from objects less than 20 feet distant are called divergent rays. A collection of parallel rays is called a beam of light, in contradistinction to a pencil of light, which is a collection of divergent rays.

It is essential that the student in optics should realize and comprehend this, as many important facts in the science hinge upon it. For instance, it is obvious that when rays of light have to be converged by a convex lens to a focus at a certain distance, less refraction is required to do this if the rays be parallel than if they be divergent.

A sphere is a body having every point of its surface equi-distant from a common centre.

A ball or sphere of glass of two inches diameter will have a radius of one inch; this ball constitutes practically a 1-inch double convex lens. The central portion of the sphere, included between *AB* and

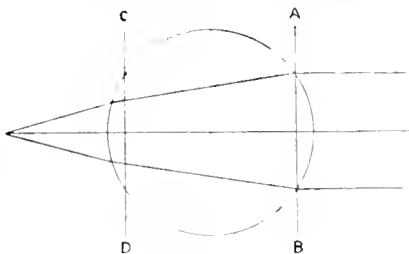


FIG. 12.

CD, as in Fig. 12, could be cut out and the power would remain the same, the strength of a lens depending on the radius of its curvature, and not on its thickness. If the two segments cut off by *AB* and *CD* be brought together, they form exactly an ordinary double convex No. 1 inch lens, whose focus is one inch behind its centre, the thickness of the lens being disregarded.

One segment of such a sphere having only half the amount of curvature would have half the refracting power, and constitute a No. 2 inch lens.

Concave lenses are hollows made by spheres, and on the curvature of the sphere depends the strength. A piece of glass hollowed out on both sides by a sphere of one inch radius makes a 1-inch double concave lens. If only one side be hollowed, then it is a No. 2 inch plano-concave lens.

Such lenses, being segments of or ground on spheres, are called spherical

(sph.) lenses. If double convex, the focus is at the radius; if plano-convex, the focus is at the diameter of the sphere. A double concave is of the same number as the radius of its curvature; a plano-concave as the diameter of the sphere upon which it is ground.

A convex and a concave lens of the same number neutralize each other, and form plain glass when placed together.

(To be continued.)

Menthol.

The latest issue of the *Therapeutischen Monatshefte* (No. 9) contains, under the heading, "Practical Notes and Useful Formulae," a lengthy report by Dr. Reinhold Wunche, of Dresden, "on the use of menthol in colds and influenza." The author refers to the statement of Ziegler, who showed that peppermint oil, even in a dilution of 1:3000, arrests the development of the comma bacillus, and that, according to Koch, at a strength of 1:2000 it possesses the power of destroying the bacillus of cholera. Ronicke's valuable investigations have shown that the vapor of menthol alone is sufficient to arrest the development of staphylococcus pyogenes aureus and other dangerous bacteria.

In regard to the use of menthol as a remedy for colds, Wunche expresses himself as follows:

"Perfumes have often been successfully used as remedies against colds, from Hager's well-known specific with acid carbolic down to eau de Cologne. According to Roux, a similar preparation is administered in the Hôtel Dieu at Paris in cases of cold in the form of energetic inhalations through the nose and mouth. It is said that this application has been uniformly successful in arresting the progress of the complaint, even with patients in whom tracheo-bronchitis always accompanied a cold. I am personally able to vouch for the favorable effect of eau de Cologne in the initial stage of coryza. As I used to be a frequent sufferer of acute catarrh of the upper air passages and of true influenza, I have probably experimented on my own person with every remedy that has been prescribed against these complaints.

"I have always found menthol, dissolved in chloroform, to be the most efficacious of all remedies.

"A solution of 1 to 2 parts of menthol in 20 parts of chloroform will not only arrest the progress of a cold in its initial stage, but is also an excellent influenza prophylactic.

"From 4 to 6 drops of the solution should be placed in the hollow of the hand, quickly rubbed between the hands, the two hands tightly pressed together, placed before the face, and the remedy energetically inhaled alternately through the nose and the mouth.

"It will be immediately noticed that the volatile parts of the solution thoroughly impregnate the mucous mem-

branes of the nose, mouth, and throat, and even penetrate deep down into the air passages. During the first two or three inhalations the sweetish chloroform vapor predominates; afterwards, however, only menthol, in an attenuated condition, is inhaled, odor and feeling remaining apparent for some time after inhalation.

"As a rule, the first inhalation suffices to cure the severest tendency to sneezing, and often to arrest the progress of the cold altogether. Two further applications of the remedy in the course of the day suffice to repress the attack completely.

"The first inhalation at first slightly increases the flow from the mucous membrane of the nose; afterwards, however, this symptom diminishes quickly.

"Pains in the pharynx and larynx may be quickly eased, and often entirely cured, by the remedy.

"When, a few months ago, the influenza made its reappearance, I preserved myself and my family from the epidemic by means of chloroform-menthol inhalations, and this in spite of the fact that I was brought in frequent contact with sufferers from influenza, and that I had fallen a victim to the complaint on every previous occasion of its appearance.

"If I should obtain no other satisfaction from these lines than that of having again called the attention of my professional brethren to the usefulness of menthol in cases of acute catarrh, I shall have rendered a service to large numbers of sufferers.

"A small vial, containing about 5.0 grammes of chloroform and from 0.3 to 0.5 grammes of menthol, should be kept as a cheap and reliable remedy in every household." — *Semi-Annual Report of Schimmel & Co.*

Photography and Electricity.

At the last meeting of the Paris Academy of Sciences, M. H. Murat, of Havre, described results similar to those of Roentgen, obtained by the use of ordinary light. He places a sheet of copper in a photographic printing frame, next to this the object to be photographed, and then the sensitized gelatin plate. The frame is afterwards placed on a large sheet of copper, then covered with a sheet of lead, and the overlapping edges of the copper and lead sheets are folded over so as to enclose the frame completely, thus excluding ordinary light rays. After exposure of the whole to sunlight or lamp-light, however, and subsequent development of the plate, distinct images are obtained of a similar nature to those of Roentgen. It has been found by M. Le Bon that electricity is generated during the formation of the photographic image, and Professors Righi, Bergmann, and Bergin find that the Roentgen rays have the property of electrically charging an insulated body, even if sheltered by means of a Faraday screen. — *Pharmaceutical Journal.*

The Commercial Value of Truthfulness.

It has been said that only a commercial people place a high value on personal veracity, the statement being fortified by the familiar fact that the most truthful folk in the world are the English, the most mendacious the Orientals. The observation, with individual exceptions, of course, is so evidently a matter of common experience that it needs only illustration to enforce its justice. In no other language is the word "liar" an epithet so absolutely opprobrious and insulting. To the rest of the Teutonic peoples it carries a sense of injury and personal challenge, but with nothing like the same force. Outside of the Teutonic kindred, it has but little force as an epithet; to the peoples of Latin blood (though the Romans in their prime were as truthful as the Greeks were mendacious) it scarcely bears a sense of derogation. The French lady playfully uses to her friend the same epithet—*menteur*—as the outraged man to his defamer; though it is apparent that with the growth of French enterprise it is acquiring a stronger character. To the rest of the Latins truthfulness is scarcely regarded as having a moral significance—witness the outrageously manufactured, distorted, perverted, and exaggerated news from either side in the Cuban struggle. The Celt is too good-natured, too eager to make himself agreeable, to be truthful; the Oriental races, with the possible exception of the Japanese, do not know the meaning of truthfulness.

From a study of the terms of insult and opprobrium in any language, one could with tolerable accuracy deduce the occupation and character of the people. The Frenchman is tetchy upon his birth, his personal courage, his taste; the German, upon his position, his learning, his courage; but the Anglo-Saxon alone, of all peoples, upon his veracity and his fairness.

All this arises from the fact that business is possible only between people who can and do trust one another. The whole structure of modern commercial life is reared on the foundation of confidence in the integrity and veracity of the individual. Hence it follows that every liar, every prevaricator, and every patron of subterfuge is an enemy to society, a betrayer of mankind; and this fact it is that makes the word "liar" equivalent to a blow in the face of an Anglo-Saxon.

Underlying all popular disapproval or approval, there can be found some principle which is a racial inheritance developed by heredity into an instinct. Public morality is the tribal instinct of self-preservation, formulating itself in laws of personal conduct; and the prejudice against adulteration, sophistication, substitution, and similar trade offences, are manifestations of this moral feeling, which it is shameful to outrage and perilous to defy.

The man who sells me a pound of oleo-margarine when I buy a pound of butter

may be actually benefiting rather than injuring me personally, but he is outraging my confidence, and to the extent that I am a part of society is impairing the morals of society. The man who mixes barytes, white lead, and zinc, and sells it to me in a can labelled "White Lead," may be, and very possibly is, giving me better paint value than if he furnished what he falsely professes to supply, but he is impairing the sacredness of mutual confidence, and is thus far immoral.

Fraud and immorality flourish most when the majority are most honest and most moral; the greater the confidence of a community in one another, the more numerous and facile the opportunities for abusing and taking unfair advantage. In a community where every man carries his property in a belt, his revolver in his boot, and his life in his hand, the opportunities for violating public morality, such as it may be, are limited, and not eagerly sought. But in a community where the physical guarantee has been replaced by the moral guarantee—that is, in modern commercial society—the only defence is in the security of personal integrity.

The moral of all this is that without a foundation of absolute truth, candor, and integrity, business, based, as it now is, on credit and confidence, would be impossible; that every evader of the truth, the whole truth, and nothing but the truth, is a foe to modern society; and that unless the average of personal integrity were very high, modern business would be impossible. The lesson is worthy the attention both of pessimists, who think the world is going to the dogs, and of that rather numerous minority with shifty instincts, who think it permissible to deceive in spirit while observing the legal letter of facts.—*Drugs, Oils, and Paints.*

A Crusade on Patent Medicines in Germany.

The Germans have been studying up the matter of patent medicines, and, judging by the way that country deals with any of its internal arrangements over which it has supreme control, it may be supposed that it is not altogether a Tom Tiddler's ground for the enterprising medicine man. A year or so ago we remember that the advertisements of a certain lady, who is a large advertiser in most countries, were blighted by the action of the authorities, who adopted a singular course of boycotting, if such an expression may be applied to state ceremony, by allowing the advertisements from this lady to go in the leading papers, for which, of course, she had the usual privilege of paying, and then appending a small announcement on their own account, stating the composition of the article and the cost of the ingredients. The effect upon the business and upon the feelings of the advertiser can be better imagined than described. Whether it altogether put an end to the public advertising of

this particular article, we cannot say; we should suppose it would, as it would indeed be a plucky advertiser who could persist in a large expenditure with such damaging opposition.

The public analyst of Berlin has been at work again upon the proprietary articles of his city, and avows that those he has examined are comparatively worthless, and the price demanded about twenty times the value. As to the price being twenty times the cost, this will not alarm most people, while the mere opinion of the analyst, who is probably not a person addicted to the use of special remedies, is only to be considered of importance as to its influence upon the action of the authorities. The selling price of seven bottles of medicine he examined amounted to £1 11s. 3d., and he computed the cost at 1s. 9¼d. What will be done with the pilloried medicine vendors remains to be seen.—*Magazine of Pharmacy.*

A New Advertising Sign.

Novelty in advertising is the thing now. Men of brains are paid handsome salaries to devise new schemes. The latest and one of the most humorous has been amusing the patrons of theaters for three or four nights, and has succeeded in escaping the notice of managers. A bald-headed man is the instrument. On his shining pate is painted in indigo-blue the name of a patent medicine. He sits in the front row and conducts himself with propriety, while people behind him are convulsed with laughter, each observer supposing that here is a practical joke someone has played on an unsuspecting friend.—*New York Press.*

Loafers.

Loafers, no matter how respectable, are a positive injury to any retailer, who might well copy the system of the wholesalers with whom he deals, although the latter generally have more time at their disposal, owing to their customers being fewer and sales larger. Better for a grocer, dry-goods dealer, druggist, tobaccoist, or any other business man, to offend a whole coterie of loungers than to spoil his trade by incommoding persons who mean business. No one likes to place small orders when a lot of idle persons are listening, ready to make comments on them and their purchases as soon as their backs are turned. The man who succeeds in these days is the one who is courteous, prompt, and always attending to his own business; and I have yet to see the store where there is not always something to be done in the way of re-arranging stock, dusting, or at the desk, when not engaged in serving customers. One of the most successful retailers I know possesses the knack of respectfully getting rid of loquacious gossips without giving them offence, and his store is never blockaded with loungers.—*Michigan Merchant.*



Show Case Display. Box Davis' Fly Poison Felts
20 pkgs. 4 Felts in each package. 5c. per package.

FREE Till May 1st

To Every Druggist in Canada

WE offer to the trade free till May 1st, One Show Case Display Box, containing twenty 5-cent packages of Davis' Fly Felts, to every purchaser of three boxes, at the reduced price of \$6.75, making \$15 worth of Fly Felts cost but \$5.75.

This is the best special offer we have yet made to the trade. We are prepared for an unusually large demand, but it would be wise to order early. The sale of Davis' Fly Felts has increased very rapidly in all parts of Canada, and is now of great proportions. Order through your regular suppliers; our business is done exclusively through the wholesale trade. If supplier has not our special offer in stock, write us, and we will see you fully supplied. The following well-known and reliable wholesale dealers will be pleased to book orders for special offer:

Victoria, B.C., Landley & Company.
London, Ont., J. A. Kennedy & Co.
London Drug Co.
Hamilton, J. Winer & Co.
Toronto, Ont., Northrop & Lyman Co.
" " T. Millburn & Co.

Toronto, Ont., Elliot & Co.
Lyman Bros. & Co.
Montreal, Que., Lyman Sons & Co.
Brayley Sons & Co.
St. John, N.B., T. B. Barker & Son.
The Canadian Drug Co.

Halifax, N.S., Brown & Webb.

POWELL & DAVIS COMPANY - - CHATHAM, ONT.

Wine of the Extract of Cod Liver

Sold by all first-class
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CHEVRIER

General Depot:—PARIS,
21, Faubourg Montmartre, 21

This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis, and all diseases of the Chest.

Wine of the Extract of Cod Liver with Creosote

General Depot:—PARIS,
21, Faubourg Montmartre, 21

CHEVRIER

Sold by all first-class
Chemists and Druggists

The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

... MOST WONDERFUL DISCOVERY OF THE AGE. ...

Excelsior Egg Preserver

It is no pickle: you simply treat the eggs with **Preserver**. After treating lay them away in a cool, dry place, in a box. The idea is to lay down a supply when eggs are cheap.

The **Preserver**, used according to our directions, will stop all decay of the animal matter of the shell, and, at the same time, seals every pore of the shell, which will keep the yolk in the centre of egg, where it is always found in fresh eggs, as the air cannot escape, nor can it work in, and we guarantee the egg to be as fresh in one year as the day it was treated. It costs less than one cent per dozen to lay them down, and a child can do it: it requires no skill. **Preserver** will be appreciated by all your customers.



FOR SALE BY ALL WHOLESALE DRUGGISTS.

Manufactured by

Canadian Depot . . .

P.O. Box 93,
HAMILTON, ONT.

EXCELSIOR MANUFACTURING CO.,

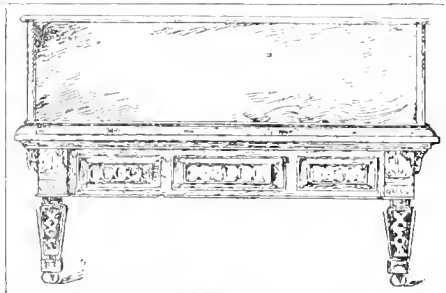
6344 CHAMPLAIN AVE.,

CHICAGO, ILL.

W. Millichamp, Sons & Co.

MANUFACTURERS OF
**SHOW
CASES**

And all
Interior
Woodwork
FITTINGS



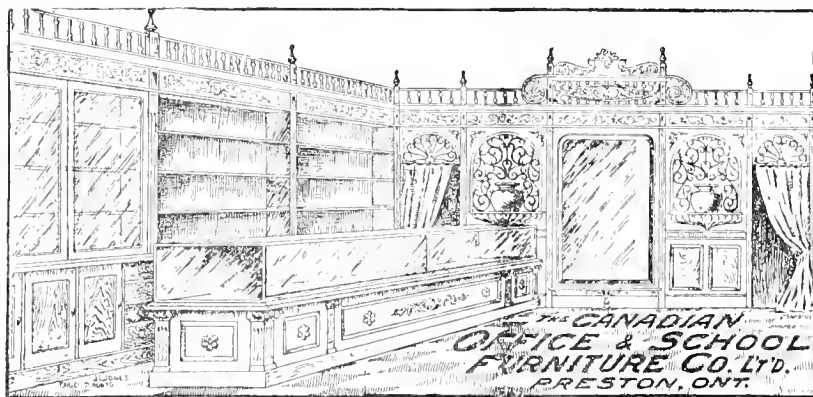
Special
New
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Best
Workmanship

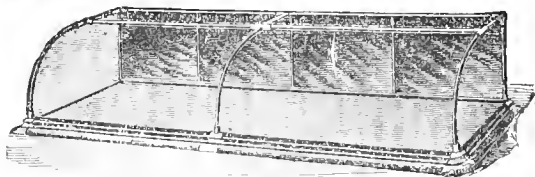
**Cigar Cases with Patented Moistening Trays.
Sponge Cases.**

Send for Catalogue.

234½ Yonge Street, Toronto.



C. Schack & Co....



Manufacturers of

SHOW CASES
STORE AND OFFICE
FITTINGS

Choice Designs in
CHERRY, OAK, WALNUT and MAHOGANY.

FIRST-CLASS WORKMANSHIP.
LOWEST PRICES.

Special Attention Given to Fitting Drug Stores

Estimates and Designs
Furnished on Application.

21-23 Alice Street. - - TORONTO.

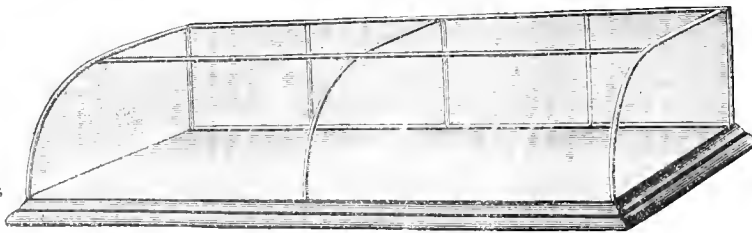
LONDON SHOW CASE WORKS

Manufacturers of

**SHOW
CASES**

Of all kinds

FOR



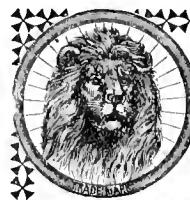
COUNTERS, WALLS, OR DISPENSARIES.

SHOP FIXTURES ♦ COUNTERS ♦ TABLES ♦ SHELVING ♦ MIRRORS, Etc.

Send for Catalogue
and Price List

237 King Street,

LONDON, ONT.



**A POOR
WHEEL**
is like a poor
horse—it costs
more than its
worth to keep
it.

In the **Monarch**

the necessity of repair has been
reduced to a minimum. Its
strength, lightness, and beauty
make it a marvel of modern me-
chanical skill.

**The
Monarch**

IS
UNDOUBTEDLY
KING OF
WHEELS

A wheel that you can depend
upon in any emergency. Made
in four models—\$80 and \$100.
The "Defiance"—made in eight
models—\$40, \$50, \$60 and \$75.
Send for the Monarch book.

Monarch Cycle Mfg. Co.,
Chicago, Ill.

83 Reade Street, New York.
3 and 5 Front Street, San Francisco.

Canadian Branch:

6 and 8 Adelaide St. W., Toronto.

P. R. WRIGHT, Proprietor.

JOSEPH E. SEAGRAM

Waterloo, Ontario.

MANUFACTURER OF

ALCOHOL

Pure Spirits

Rye and Malt Whiskies

"OLD TIMES" AND "WHITE WHEAT"

"St. AUGUSTINE"

Registered at Ottawa.

Our "St. Augustine" (Registered) is
the perfect wine for communion or invalids.
Your wine merchant can supply you at \$4.50
a case, one dozen quarts. See that you get
the genuine article. All good articles
counterfeited. See that our name is on label
and capsule.

Our "St. Augustine" (Registered), of
1891 vintage, a choice sweet, mild wine,
and equal to imported wines at double the
price.

J. S. HAMILTON & CO.
BRANTFORD

Sole Agents for Canada for the Pelee Island Wine Company

Pharmacy in England.

The Wines of the B.P. Proprietary Medicines and Their Distributors Novelists on Poisons—Roentgen's "X" Rays Parko, Davis & Co.'s Euthymol—Squire & Son's Leulia Preparations Cellulose Wadding.

(By Our Own Correspondent.)

The writer on the subject of the B.P. wines in the *Pharmaceutical Journal* has certainly laid himself open to the charge that what is new in his short notes is not true, and what is true is not new. In commenting on the wines as a class, he suggests that they do not justify their existence among pharmaceutical preparations. This, of course, is purely a matter of opinion; but in this instance the value of the opinion is considerably discounted by false premises. It is not true that alcohol in the form of wine is more expensive than alcohol in plain rectified spirit—at least in Britain. The duty on a wine containing just under 30 per cent. of proof spirit is only 24 cents per gallon, whereas the same diluted strength of plain spirit would be subject to a duty of 78 cents. Indeed, it is largely due to this difference of duty that excise officers have to periodically visit all chemists that keep stills, as it is a constant source of fear to the revenue that spirit from these low wines might be distilled and used. Antimonial wine is dismissed as not requiring any special reference, but it would be an improvement if the B.P. directions should ensure the complete solution of the tartarated antimony by dissolving it in about ten times its weight of hot water and then add this to the wine. The wine is ready then in a few minutes, and one can be absolutely sure that it contains the proportion of antimony. The value of the acidity of wines is quite overlooked in the remarks upon wine of colchicum. The inference from the remarks is that this preparation is probably not superior to the tincture, and yet clinical testimony does not support this view. It is probable that, as in the case of ipecacuanha, an acid menstruum is most useful both for extracting the alkaloid and retaining it in solution; something similar may be the case with colchicum. At any rate, the writer ought to have known that wine of colchicum seeds is preferred by very many doctors to that made from the corn, and it certainly does not deposit to anything like the same extent. Iron wine is dismissed as unsatisfactory, whilst the wine of citrate of iron is praised—for administration to children! This is a bad blunder; for, although the iron wine is a most variable preparation, it is used fully twenty times as much for children as the nauseous citrate of iron wine. It is probable that there is room for another iron wine for anæmic children, and that a wine of lactate of iron would prove both useful and acceptable. The writer takes up a bold position when he recommends the deletion of ipecacuanha wine. It may not be the perfect preparation that one could wish, but that it answers its purpose there can be no manner of doubt. I

have the best of reasons for knowing that the pharmacopœial committee have no such intention of removing this preparation, and, if they did, it would hardly affect its popularity both with medical men and the public. It is a pity that the editor of the *Pharmaceutical Journal* did not impress upon his contributor that it was facts that were wanted in discussing this subject, and not fancies.

The Association of Manufacturers and Distributors of Proprietary Articles enjoys a long title, but its objects are brief and to the point. It is founded by half a dozen of the large manufacturers, assisted by a score or so of the wholesale and retail trade. The object of its existence is to attempt to grapple with the "cutting" fiend, and to formulate still another plan of securing to distributors a fair share of the spoil. At a meeting last month the following manufacturers were represented: Beecham, Bovril, Allcock, Cadbury, Frame Ford, Homocœa, Liebig Co., Neave's Food, Powell's Balsam of Aniseed, Burroughs, Wellcome & Co., Coleman, Whelpton, Sainsbury, Hall & Elliman. The healthiest sign regarding the new association is that it combines the three parties to the business—the manufacturer, the wholesaler, and the retailer. The manufacturer is waking up to the fact that the cutting stores are really enemies and not live friends, as we fondly hoped at first. Substitution is rampant at all these stores, and the effective display of the substitute in the shop, and the aggressive manner in which the spurious article is pushed, has opened the manufacturer's eyes. Now he yearns for the return to the old days when chemists were the distributors and sharp practices did not exist.

The wholesaler is unhappy because selling proprietary preparations is giving change for sixpence, and upon him rests all the unpleasantness of enforcing these agreements not to cut prices. Whilst anxious, therefore, to see a little remuneration thrown into an unprofitable business, he is most concerned in raising his voice against any ill-considered scheme that should entail more clerical labor and irritating supervision over the supply to retailers. As for the retailer, his grievances are well known, and require no mention. It is satisfactory to note that on all sides schemes are being formulated that show some appreciation of the loyalty and honorable conduct of the retailers, and it is to be hoped that out of the multitude of counsellors wisdom may proceed. Surely it does not pass the wit of man to produce a scheme that shall be both fair and feasible, workable and worthy, when so many concerned with it are agreed of the necessity.

The ignorance of novelists upon the subject of drugs in general, and poisons in particular, is notorious. Only a few months ago the hero of a tale in one of the magazines was able to recognize at a glance that prussic acid had been used with murderous results by means of a

steel blue stain on the linen. Now we have another hero, in a lady's journal, rendered insensible by chloroform, which he recognized by its *stickiness*. Even a society journal gallantly recommended, a short time ago, the use of chrysarobin ointment as an aid to the complexion. Many of the household journals pander to the popular taste of dosing one's self, and the prescriptions published are sometimes fearfully bungled by the printer. It is recorded that one journalist thoughtfully followed up a mistake made in a prescription, where an ounce of strychnine was prescribed for a grain, by sending the name and address of the nearest undertaker!

Professor Roentgen's discovery of the peculiar behavior of the "X" rays that pass through a Crookes tube is exciting a large amount of interest. As the discoverer appropriately calls them, the photographs of which we have heard so much are really "shadow-pictures." Unlike ordinary photography, no camera or lens is required, and the pictures are usually positives, and not negatives. As to the value of the discovery, a good deal of over-sanguine expectation has been raised in its application to the diagnosis of disease and injury. Suggestions were freely made that disease and injuries of the bones could be more accurately determined by this method than by the touch of the experienced surgeon. This is now known to be impossible, except in the few instances of affections of the toes and fingers. At the Royal Society an interesting discussion led to the expression of opinions by Captain Abney, Professor Dewar, and others, that phosphorescence is certainly concerned in the action of the rays, and that resistance to their passage increases with the higher atomic weight of elements.

"Euthymol" is the name given by Messrs. Parke, Davis & Co. to a liquid antiseptic containing eucalyptus oil and thymol with boric acid, and possesses a most pleasant and refreshing odor. It is very popular with English physicians as a substitute for carbolic acid and iodoform, as it is non-poisonous and much more pleasant to use. It is also recommended as a toilet preparation, as when used in the bath, or diluted as a mouth-wash, it is both refreshing and stimulating.

"Leulia" is the registered trade mark of Squire & Sons, chemists by appointment to the Queen's household, for use with toilet preparations. The origin of the word is wrapt in mystery, unless it has some relation to the Greek word *leios*, smooth. The series of toilet accessories include a cream, which is delicately perfumed and intended for the face and hands, a superfatted soap, and a dusting powder. There is also a tinted face powder and a leulia extract, intended for those who complain of the action of east winds and sunburn. The series is completed with a dentifrice which is perfectly harmless and yet efficient. The style adopted all through is very *recherché*, and

the pink celluloid boxes for the cream with gilt lettering on the lids is distinctly novel.

Cellulose wadding, manufactured, under a patent, by Robinson & Sons, of Chesterfield, Eng., from pine wood fibre, is claimed to be much superior to cotton-wool, in its greater absorbing power, and relative cheapness. It is even and smooth, light and easily applied as a dressing, and bids fair to create a new era in antiseptic dressings.

Advertising.

Practical Hints on Advertising.

Copyrighted, 1895, by CHARLES AUSTIN BATES.

There is no business or profession which advertising will not help. Some of the professions have been very slow to recognize this, but gradually they are coming to a realizing sense of the importance of publicity.

An eminent musical artist in Chicago recently published a pamphlet advertising himself. The opening paragraph states the advertising case as he sees it:

"This is a quickly moving age; the sensation of to-day is forgotten to-morrow; competition is keen, and everyone is anxious to keep before the public by some means or other; the appetite of the reader has been dulled, and to attract him again either new facts have to be adduced or the old presented in different form. What is the artist to do to keep apace with the hurried throng who are too busy to listen to his little song? He must either be content with the appreciation of the few, or, to a degree, unite some commercial element with the exercise of his art. It does not suffice that he considers himself great; he must succeed in impressing others with that fact."

The last sentence tells the whole advertising story. A man may have the very best store and the best stock in the world. His prices may be of the lowest, but he will not sell a dollar's worth unless he succeeds in making people believe that he has and does these things.

The greater number of people who know that a man is in business, and what he sells, the better his business will be. Advertising is the quickest and best way to impart this information. Newspaper advertising is the best kind of advertising, because it will carry the information to more people for less cost than any other kind. This is a fact which a lead pencil and a little figuring will demonstrate beyond argument.

The man who starts out to advertise with a set of cast-iron rules has not much chance for success. If he says at the beginning of the year: "I am going to spend just \$1,000 this year for advertising, and not a cent more," he is making a great mistake.

It is all right to fix in your mind in a general way the amount you expect to spend, but to have a fixed advertising appropriation and to decline good advertising when you need it, simply because "the appropriation is exhausted," is a very poor business policy.

The amount of advertising necessary depends on the amount of business that it is necessary for you to do. It depends on the conditions of trade, and, to a certain extent, on the weather.

Sometimes \$10 worth of advertising will sell \$1,000 worth of goods, and sometimes it will take \$50 or \$100 worth of advertising to do it.

Advertising is business medicine, and should be taken in such quantities and at such times as it is needed. A man does not decide at the beginning of the year just exactly what he is going to spend for drug bills and doctor bills. If he did, he would wake up some morning toward the end of the year and find himself very dead. Business and advertising are just like the man and his medicine.

Once in a while some business man, by advertising in programmes, souvenirs, and various other schemes, determines that "advertising doesn't pay," and forthwith begins to preach this doctrine.

Several thousand years ago a gentleman named Esop told a little story that has a distinct application right here:

"A fox was once caught in a trap by his tail, and, in order to get away, was forced to leave it behind. Knowing that without a tail he would be a laughing-stock for his fellows, he resolved to try to induce them to part with theirs. So at the next assembly of foxes he made a speech on the unprofitableness of tails in general, and the inconvenience of a fox's tail in particular, adding that he had never felt so easy as since he had given up his own. When he sat down a sly old fellow arose, and, waving his long brush with a graceful air, said, with a sneer, that if, like the last speaker, he had lost his tail, nothing further would have been needed to convince him; and till such an accident should happen he should certainly vote in favor of tails."

Pick out the largest users of newspaper space, and you will find that they are the users of space in extraneous media. You will not find among them a single one who is not firmly convinced that advertising does pay. The more a man spends for newspaper advertising, the more positive he is in his belief in the results that it brings.

Ask the man who uses the most space in this paper what he thinks about it.

In a recent article by William Dean Howells he tells a story which, he says, has influenced all his life.

The hero of the story is a young Dane, who was going up among the fiords to seek his fortune in the northern fisheries. Many times, when he was sailing through the fiords, he found himself locked in by mountain walls, with no apparent outlook. It seemed, if he kept on, that he would sail directly into the rocks, but each time, as he proceeded, he found some unexpected channel which allowed him to go safely on his way.

Sometimes it seems that advertising is being wasted, that there is no possible way that it will turn out profitably; but if the advertiser will keep right on he will find clear business channels opening, and in the end will make a safe landing in the harbor of success.

A little advertising may be unprofitable when a great deal would pay handsomely. Short-time advertising seldom pays. That is the reason that ads. in the many ephemeral "schemes" that come to every business man are never profitable. It is continuous, consistent, courageous, intelligent advertising in the best newspapers that always and infallibly brings good returns.

Persistence in it pays. It's the man who gets scared and quits who loses his money.

The Opium Yield.

Counting on the maximum yield of Turkey opium, and taking into account the existing stock, the total amount will be 10,000 cases, which is said to be amply sufficient for pharmaceutical and special consumption for one and a half years, as this consumption has never exceeded an average of 5,500 cases in the year. Persian opium is plentiful in the consuming markets. If the forthcoming crop should be a good one, the quantity available for consumption during 1895 and 1896 will be not less than 14,000 cases.

A New Antipyretic.

Paracetophenol-ethyl-carbonate is recommended as a new antithermic, analgesic, and hypnotic. It is found a crystalline, colorless, and tasteless substance, soluble in alcohol, but almost insoluble in water. It rapidly reduces the temperature 5° F., and is of great service as a speedy reliever of pain.—*Ph. Centralh.*

SALICYLIC ACID IN WINE.—Spica recommends (*Pharm. Wochen.*) to use petroleum ether in place of ether for extracting salicylic acid from wine for the purpose of making a quantitative determination, since ether will extract, in addition, tannic, tartaric, and acetic acids, which interfere with the reaction.

"THE BEST" NURSER...



EASY SUCTION

EASILY CLEANSSED

NIPPLE CANNOT COLLAPSE

PREVENTS WIND-COLIC AND
BOWEL TROUBLES.

EXTRA VALVES (Air Inlets) and "CLING-FAST" Nipples may be had of all wholesale druggists at 35c. per dozen.

"The Best" Nurser \$2.10 per dozen (complete).

St. Louis, Mo.
"The Best" Nurser is a godsend to babies.
L. A. TURNBULL, M.D.

The London Drug Co., LONDON, ONT.

M'COLLOM'S

Rheumatic Repellent

By intrinsic merit has obtained extensive sale in Canada and the United States as the most reliable cure known for rheumatism, as it not only relieves, but also thoroughly removes the cause from the system. It is neatly put up in \$1.00 bottles, taken with good effect on the liver, kidneys and blood, and has been in successful use over twenty years. Many druggists to whom we are under great obligation express much satisfaction in handling this reliable remedy.

Sold by Wholesale Firms of Montreal, Toronto, Hamilton, London, Winnipeg, and by Retail Druggists generally.



For sale at Manufacturers' Prices by the leading whole sale druggists and druggists' sundrymen throughout Canada.
Complete Illustrated Price List free on Application

Royal Oil Co. — Toronto

Offer the following special lines
to the Drug Trade:

- XX Petrolatum, in 50 lb. tubs, 7c. per lb.
- " in 25 lb. tubs, 7½c. "
- White Petrolatum, in 25 lb. and 50 lb. tubs 18c. per lb.
- Benzine, 5 gal. tins, 20c. per gal.
- Extra Gasoline, 5 gal. tins, 25c. per gal.
- Sewing Machine Oil, 5 gal. tins, 60c. per gal.
- Sewing Machine Oil, in 2 oz. bottles, \$5.00 per gross.
- Royal Hoof Ointment, in 1 lb. tins, 24 tins to case, \$3.50 per case.
- Raw Linseed Oil, by the barrel, 55c. per gal. delivered.
- Raw Linseed Oil, in 5 gal. tins, 58c. per gal. f.o.b. Toronto.
- Boiled Linseed Oil, by the barrel, 58c. per gal. delivered.
- Boiled Linseed Oil, in 5 gal. tins, 61c. per gal. f.o.b. Toronto.
- Pure Neatsfoot Oil, in 5 gal. tins, 90c. per gal.
- Olive Oil, Union Salad, 5 gal. tins, 90c. per gal.
- Olive Oil, for table, Pure Italian, \$2.00 per gal.
- Sperm Oil, pure, in 5 gal. tins, \$2 per gal.
- Castor Oil, Calcutta, cases, 6½c. per lb.
- " " 5 gal. tins, 7c. per lb.
- " " French, 5 gal. tins, 7½c. per lb.
- Sperm Candles, 36 lbs. to case, 10½c. per lb.
- Paraffine " " " 11½c. per lb.
- Spirits Turpentine, pure, by the barrel, 46c. per gal. delivered.
- Spirits Turpentine, pure, in 5 gallon tins, 49c. per gal. f.o.b. Toronto.
- Wood Jacket, 5 gal. cans, 50c. each.



Terms: 30 days. No Discount.

WE GUARANTEE PURE GOODS
WE GUARANTEE PROMPT SHIPMENT
WE GUARANTEE PERFECT SATIS-
FACTION

We are the largest producers and manufacturers of Canadian oil, and the largest importers of American oil in Canada.

Your orders will be appreciated.



ROYAL OIL COMPANY
Toronto

GEO. ANDERSON

Manager



PER DOZ.
No. 1. Nozzle and Shield, with Outlet Tubing . . . \$2.00
No. 2. " " Complete 2 qt. Fountain. 45
DISCOUNT TO TRADE ON APPLICATION.
BEST SYRINGE ON THE MARKET. SOLD BY ALL JOBBERS.

LYMAN, KNOX & CO.

Montreal and Toronto
Agents for Canada.



Sold from Halifax to Victoria

BY

HALIFAX { Brown & Webb, Simson Bros. & Co.
Forsyth, Sutcliffe & Co.
ST. JOHN—T. B. Barker & Sons. D. McDiarmid & Co.
YARMOUTH—C. C. Richards & Co.
QUEBEC—Kerry, Watson & Co. Lyman Sons & Co.
MONTREAL { Evans Sons & Co. Lyman, Knox & Co.
KINGSTON—Heory Skinner & Co.
TORONTO { Lyman Bros & Co. Evans Sons & Co.
Northrop & Lyman.
T. Milburn & Co.
HAMILTON—Archdale Wilson & Co. J. Winer & Co.
LONDON—London Drug Co. Jas. A. Kennedy & Co.
WINNIPEG—Martin, Bole & Wynne Co.
NEW WESTMINSTER—D. S. Curtis & Co.
VICTORIA—Langley & Co.
QUEBEC. W. Brunet et Cie.

BRAYLEY, SONS & CO.

Wholesale Patent Medicines

43 and 45 William Street, - MONTREAL.

OUR SPECIALTIES:

TURKISH DYES.

DR. WILSON'S HERBINE BITTERS.

Sole Proprietors of the following:

Dow's Sturgeon Oil Liniment
Gray's Anodyne Liniment
Dr. Wilson's Antibilious Pills
Dr. Wilson's Persian Salve
Dr. Wilson's Itch Ointment
Dr. Wilson's Sarsaparillian Elixir
French Magnetic Oil
Dr. Wilson's Worm Lozenges
Dr. Wilson's Pulmonary Cherry Balsam
Dr. Wilson's Cramp and Pain Reliever
Dr. Wilson's Dead Shot Worm Sticks
Nurse Wilson's Soothing Syrup
Clark Derby's Condition Powders
Wright's Vermifuge
Robert's Eye Water
Hurd's Hair Vitalizer
Dr. Howard's Quinine Wine
Dr. Howard's Beef, Iron and Wine
Strong's Summer Cure
Dr. Howard's Cod Liver Oil Emulsion

"DUNRAVEN" 10c.

"F. & S." 5c.

These are both very
high-class Cigars.

Fraser & Stirton,

Send for Sample Order.

LONDON, Ont.

**"Mist" COUGH
LOZENGES**

SELL ON SIGHT
GOOD PROFIT . .

10cts.

THE KEY MEDICINE COMPANY,
395 YONGE STREET, TORONTO.

**WATSON'S
COUGH
DROPS = =**

Are warranted to give **Immediate Relief**
to those suffering from **Cold, Hoarse-
ness, Sore Throat, etc.**

R. & T. W. STAMPED ON EACH DROP

If you want to sell the best, handle

© **Major's Cement** ©

CHEAP, QUICK, AND CERTAIN.

Repairs China, Glassware, Meerschaum, Bric-a-Brac, to put on cloth, corn
and bunion plasters; to hold a bandage on a wound or sore finger. 15c., 25c.

Major's Rubber Cement, 2-oz. bottle, or in collapsible tubes, for repairing
rubber boots and shoes, bicycle tires, rubber garments, silk umbrellas,
etc. 15c.

Major's Leather Cement repairs boots and shoes, garments and umbrel-
las of all kinds of material except rubber, applied same as on leather
goods. 15c.

Major's Liquid, Glue repairs furniture, books. 10c.

A. MAJOR CEMENT CO., 461 Pearl Street, N.Y.

ASK DEALERS. OR MAIL PRICE OF BOTTLE.

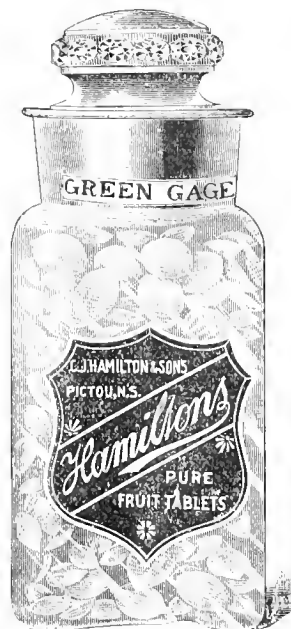
Fine Fruit Tablets



**ENGLISH FORMULA
TABLETS**

Have been our specialty
and have been a success.
Packed in elegant Flint
Glass Jars, large glass stop-
per, the finest package in
the Dominion. Also in
round jars, similar to Eng-
lish, but made two inches
shorter to fit the ordinary
shelf. A large variety.
List of flavors and prices
on application.

**G. J. HAMILTON
& SONS,
PICTOU, N.S.**



For information and free Handbook write to
MUNN & CO., 361 BROADWAY, NEW YORK.
Oldest bureau for securing patents in America.
Every patent taken out by us is brought before
the public by a notice given free of charge in the

Scientific American

Largest circulation of any scientific paper in the
world. Splendidly illustrated. No intelligent
man should be without it. Weekly, \$3.00 a
year; \$1.50 six months. Address, MUNN & CO.,
PUBLISHERS, 361 Broadway, New York City.

PATENTS

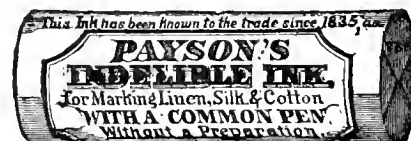
**Caveats, Trade Marks,
Designs, Patents,
Copyrights, etc.**

CORRESPONDENCE SOLICITED.

JOHN A. SAUL,

Atlantic Building, - - Washington, D.C.

THE OLDEST - THE BEST



Trade supplied by all leading Drug Houses in the
Dominion.

Formulary.

DENTAL NERVE DESTROYER.

Menthol.....	1 dr.
Carbolic acid.....	1 dr.
Cocaine hydrochlorate.....	30 gr.
Alcohol.....	2 fl. dr.
Collodion (methylated).....	enough
to make.....	3 fl. oz.

WHITE GLYCERIN.

(1) Subnitrate of bismuth.....	1/2 dr.
Glycerin.....	1 fl. oz.

Mix thoroughly by trituration in a mortar.

(2) Cologne.....	1 fl. oz.
Rosewater.....	1 fl. oz.
Glycerin.....	6 fl. oz.

Mix.

(3) Tincture of benzoin.....	1 fl. oz.
Glycerin.....	2 fl. oz.

Mix.

(4) Quince seed.....	1 dr.
Powdered borax.....	1 dr.
Cologne.....	1 fl. oz.
Glycerin.....	10 fl. oz.
Hot water.....	4 fl. oz.

Macerate the quince seed in the water for two hours, strain, and to the mucilage add the other ingredients, and thoroughly mix.—*Meyer Brothers' Druggist*.

DEPILATORY.

Sulphide of barium.....	1 part.
Lime (freshly burnt and slacked).....	1 "
Rice starch.....	2 "
Salicylic acid.....	q. s.
Glycerin.....	q. s.
Eau de Cologne, or S.V.R.....	q. s.

Mix the first three ingredients intimately, then make into a thinnish paste with the spirits, in which has previously been dissolved about 1 per cent. of acid salicylic, and 3 per cent. of glycerin. Apply to the part where required, and allow it to remain until a slight soreness is felt, then remove. Repeat the application daily until the hairs are removed.—*Mo. Magazine*.

POUDRE DE RIZ.

Wheat starch.....	2,500 parts
Talc.....	1,500 "
Magnesium carbonate.....	500 "
Orris root.....	500 "
Oil of lemon peel.....	25 "
Attar of rose.....	5 "

Powder each of the solids separately, mix and triturate with the oils.—*Seifen-fabrikant*.

FOR SMOKERS' SORE MOUTH.

For sore mouth and gingivitis due to smoking, M. Viau (in *Formulaire pratique*, etc.) gives the following :

Salol.....	1 part.
Tincture of catechu.....	4 parts.
Tincture of green mint.....	100 parts.

Mix. To use, add teaspoonful to a half-tumbler of warm water, and employ as a mouth-wash.—*National Druggist*.

A colorless varnish is obtained from the following recipe :

Mastic in tears.....	20 parts.
Dammar white.....	10 "
Furps.....	100 "
Raw linseed oil.....	12 "

ELASTIC OR PLIABLE PASTE.

(a) 4 oz. common starch.....	
2 oz. white dextrin.....	
10 fl. oz. cold water.....	
(b) 1 oz. borax.....	
3 fl. oz. glycerine.....	
64 fl. oz. (1/2 gal.) boiling water.....	

Beat to a batter the ingredients of (a). Dissolve the borax in the boiling water, then add the glycerine, after which pour (a) into solution (b). Stir until it becomes translucent. This paste will not crack, and, being very pliable, is used for paper, cloth, leather, and other material where flexibility is required.—*Oil and Color man's Journal*.

CARBOLIC COLLODION AND LINIMENT.

Carbolic collodion may be prepared by the following formula :

R Carbolic acid.....	
Castor oil.....	1 part
Collodion.....	2 parts

For pruritus use the following lotion :

R Carbolic acid.....	4 to 8 parts
Solution of potash.....	4 parts
Linseed oil.....	30 "

—*Rev. Internat. Méd. Chirur.*

OINTMENT FOR CHAPPED HANDS.

Menthol, 1 part; salol, 2 parts; olive oil, 2 parts; wool fat, 60 parts. To be applied to the hands twice a day—night and morning.—*Bullet. Comm.*, xxiii., 514.

COCKROACH EXTERMINATOR.

A writer in a German agricultural journal states that poke root is deadly to roaches, and gives the following formula for a poison that will destroy these pests: Extract 60 to 80 gm. of poke root with a litre of water by boiling, strain and mix the extract with syrup (molasses will answer), and spread on plates in the places most frequented by them. The same writer suggests powdered borax as an effective poison for roaches.

Terebene Preparations.

TEREBENE COUGH MIXTURE.

Terebene, pur.....	5 ounces.
Acacie gum, pulver.....	4 drachms.
Syr. toluat.....	1 ounce.
Mel. ang.....	2 ounces.
Tinct. croci.....	q.s.
Aqua.....	q.s.

F.L., a small teaspoonful to be taken occasionally.

Mix intimately in a small mortar the terebene and the powdered gum; emul-

sify carefully with an ounce and a half of the water, adding the syrup of tolu gradually towards the last. Stir in the honey until the whole has become smooth, make up to the measure of six fluid ounces and color with a few drops of the tincture of saffron. This linctus keeps well, and is generally appreciated, even by young children, while in a variety of throat affections it gives speedy relief.

AROMATIC TEREBENE FOG DISINFECTION.

Terebene.....	2 ounces.
Oil eucalyptus.....	3 drachms.
Fluid thymol, orol. thym., opt.....	20 minims.

Mix.

Impregnate small pads of cotton-wool, bran, "wads" of lint, blotting-paper, etc., and hang them about the apartment some 2 1/2 to 3 feet from the ground, especially in such situations where a draught from door or window is likely to cause currents of air to pass over them occasionally.

The disinfecting mixture in question, either by itself, or, preferably, dissolved in an equal bulk of strong alcohol, or eau de Cologne, is shaken up in an atomizer with ten parts of plain water. When "sprayed," a refreshing fragrance is imparted to the air, and septic fermentation cannot then take place therein.

PASTILLES DE TEREBENE.

The following is an excellent Parisian formula :

	Grammes.
Terebene.....	80 to 100
Gum arabic, in fine powder.....	400 "
Gum tragacanth.....	200 "
Loaf sugar.....	500 "
Glycerine.....	30 "
Oil of lemon.....	12 "
Eggs, white of.....	No. 5 or 6.

Dissolve the oil of lemon in the terebene, and add the mixture to all the powdered gum, and 100 grammes of sugar. When thoroughly incorporated, emulsify with the smallest convenient quantity of water, and add the glycerine and the egg-albumen, the latter having been well whisked. Transfer to porcelain or enamelled iron vessel heated by a water bath, and, when warm, slowly sift in the fine sugar as it dissolves in the viscous fluid. Stir constantly, and evaporate until a little dropped upon a cold plate becomes, after ten minutes, of a sufficiently firm consistence. Pour out to a depth of about half an inch upon cold tin or porcelain plates which have first been dusted over with finely-sifted dry *tousles-mois*, or arrow-root. When cool, divide the stiff, dough-like mass into squares or diamonds of suitable dimensions, using a mixture of one part white sugar and three parts arrowroot, perfectly dry and in fine powder to prevent sticking. A small sugar-sifter or "dredger" will be needed during this operation. These pastilles may be safely given to the youngest children, and for persons of all ages are very efficacious.—*Magazine of Pharmacy*.

Photographic Notes

VARNISH FOR COLLODION LANTERN PLATES.—

Gum dammar.....	250 grs.
Benzole.....	10 oz.

The varnish is applied to the cold slide, and requires no heating.

CLEAR MASTIC VARNISH.—

Mastic.....	14 oz.
Canada balsam.....	2 oz.
Sandarac.....	6 oz.
Oil of turpentine.....	44 oz.

Shake, and stand until clear. Filter. The mastic, sandarac, and turpentine oil must be quite dry.

VARNISH FOR WOOD, ETC.—The following is very useful for coating the inside of wet plate dark slides and other woodwork:

Sandarac.....	4 oz.
Methylated spirit.....	12 oz.

Dissolve, and add 200 grains of Venice turpentine, and filter.—*The Photogram*.

A GERMAN patent for a new photographic paper has recently been published. This paper is intended to be used for such purposes as architects' plans and drawings—to be used, indeed, instead of blue paper. The formula given is as follows:

Ammonio-citrate of iron, 80 to 100 parts.	
Silver nitrate.....	12 to 20 parts.
Tartaric acid.....	15 to 20 parts.
Gelatine.....	10 to 15 parts.
Water.....	1,000 parts.

After printing, the paper simply requires washing in water. It is said to be very sensitive to light, and to give a brown image on a white ground.

PRINTING ON SILK.—Opphofen, in *Photographische Chronik*, suggests the following method of printing on silk, which, whilst presenting nothing very novel, may be useful to some. The silk should be freed from dressing by washing in warm water, and then floated on the following solution:

Salt.....	10 grs.
Ammonium chloride.....	10 grs.
Distilled water.....	1 oz.
Ammonia.....	15 m.

After two minutes it should be hung up by wooden clips to dry. It will keep in this condition for a long time, and is to be sensitized in a bath of

Silver nitrate.....	150 grs.
Distilled water.....	1 oz.

for two minutes, and then dried. It must be deeply printed, and then toned in an ordinary acetate bath, fixed, and well washed, and blotted off with blotting paper and dried. Such prints can be readily colored with chalk by laying the print face downwards on a white card, and rubbing the chalk well into the silk with a leather stump. When colored the

print should be shaken, and crystal varnish or aqueous shellac varnish should be sprayed on to it.—*Canadian Photographic Journal*.

THE KEEPING POWER OF PHOTOGRAPHIC DRY PLATES.—Emulsions made by the ammonia process do not keep so well as those made by the boiled emulsion process, according to H. W. Vogel (*American Annual of Photography*). He also asserts that the keeping power of an emulsion depends largely on the quality of the gelatin used, and that access of air de-sensitizes or fogs plates. Fresh plates should, therefore, be used, and kept until wanted in an air-tight case. To test the gelatin, Vogel mixes a 10 per cent. solution of it with an equal volume of a solution of ammonia-nitrate of silver of similar strength. The more yellow or brown the color of the mixture becomes, the more liable to go wrong will be an emulsion made with the gelatin.

ELASTIC DAMMAR FOR PHOTOGRAPHIC PLATES (BRANNT).—

Dammar resin.....	4 oz.
Acetone.....	18 oz.

Crush the dammar (which should be perfectly dry) and mix with an equal quantity of coarsely crushed glass. Place in a bottle and cover with the acetone. Shake at frequent intervals during fourteen days and then stand to settle. Decant and filter. The varnish is applied to the print with a soft brush, coating several times. Matt surface prints should first be sized. Suitable also for maps, plans, and printed matter, such as formulae in constant use which it is desired to preserve. The size is formed of a 5 per cent. solution of gelatine in water.—*Photogram*.

Brown Stains on Negatives.

One of the most annoying accidents common to the amateur is the sticking of sensitized paper to the negative, causing a brown stain, while any subsequent print made from this negative will have a corresponding white stain, sometimes having the appearance of snowflakes all over the picture.

The causes of sticking are quite numerous. Some of the most common being moisture in the paper or negative from being stored in a damp place; getting water on either the paper or negative; too much glycerine in the soaking solution for films; and printing collodion paper on unvarnished negatives.

If the negative should be stained from any of the above causes, it need not be considered ruined, a simple cure being a removal of the stain by means of cyanide of potassium. This process does not seem to be used much among the amateurs, either through lack of knowledge of the same, or, if known, is passed over as too dangerous on account of the poisonous character of cyanide of potassium.

But this last reason need not deter anyone from using this method, because if ordinary precaution is used there will not be the slightest danger connected with the manipulation.

Briefly the process is as follows: Immediately on discovering the stain remove the negative from strong light. (Do not under any circumstances print any more pictures from the negative, because time and light reduce the silver to a form that is next to impossible to remove from the negative.) When ready to proceed place the negative in a tray of water, and allow it to soak well; then, by lightly rubbing, remove any paper that may adhere to the negative. Now lay the negative (if film) on a piece of glass and lightly rub with a chamois swab, occasionally dipping the same in a saturated solution of cyanide of potassium. If this does not entirely remove the stain place the negative into the solution of cyanide, and continue to rub until entirely removed. Next thoroughly wash the negative for one-half hour and dry as usual.

In handling cyanide of potassium care should be exercised that there be no cuts or scratches on the hands, as it acts directly through the blood. But if the above directions are followed, it will not be necessary to wet more than the tips of the forefinger and thumb.

It is well to remember the following points:

Apply the cyanide solution as soon as possible, and, if necessary to postpone for a long time, place the negative where it will be protected from light.

In applying the solution go all over the negative, and not in spots.

Do not immerse more than the tips of the fingers in the cyanide solution, and work by an open window or in a draft.

If these simple directions are followed the process can be conducted without the slightest degree of danger to the negative or operator, and, many a valuable negative can be saved which is now discarded as useless.—*S. V. K., in Kodak News*.

Advertising Axioms

By J. WALTER THOMPSON, of New York.

Lack of trade is bitter, but results from good advertising are sweet.

"Art is long, but life is short." Don't make your "ad." too long or too short.

"The effect ceases with the cause." Therefore, advertise with constancy.

"Ads." should be written in words that burn, but not necessarily in glowing language.

The motto of New Mexico: "It increases by going." So does an "ad." Is yours going?

"The burden which is well borne becomes light," and the "ad." well printed brings heavy results.

"Better be wise than rich," says an old proverb, but the majority by far would rather advertise and get rich.

THE ALE AND STOUT

OF

JOHN LABATT

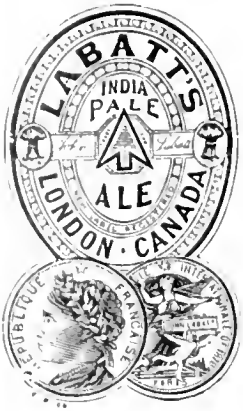
LONDON

ARE PURE AND WHOLESOME

Recommended by testimonials
of Four Eminant Chemists.
**TEN GOLD, SILVER and
BRONZE MEDALS.**
HIGHEST AWARDS on this
Continent wherever exhibited.

MONTREAL—P. L. N. Beaudry, 127 De-
Lorimier Avenue.

TORONTO—J. Good & Co., Yonge Street.
ST. JOHN, N.B.—F. Smith, 24 Water Street



A Few Reasons
WHY

DRUGGISTS SHOULD HANDLE

Dr. Story's 5-Minute Headache Cure:

- First,** Merck says the formula cannot be improved.
Second, 10 cents is the popular price.
Third, Out of 48 dailies, Ontario, we have a six-inch display and readers in thirty; we have all in 60 days.
Fourth, We protect the druggist in that we never sell or allow our goods sold to Department, Dry-goods, or Grocery stores.
Fifth,—The immense profit.

KINDLY SEND AN ORDER TO

J. A. Kennedy & Co., London,

for 1 Gross of Dr. Story's 5-minute headache
cure, at \$5.70 a gross, or 50c. a dozen.

Get ready for the boom. Don't wait, as this
journal says, till you have a dozen calls, and
your neighbor gets the benefit of the advertising.

STORY MEDICINE CO.,
Cleveland, Ohio.

A DRUGGIST'S SPECIALTY.

Gurtis & Son's Yankee Brand Pure Spruce Gum

Is meeting with the success
its high qualities merit.

A TRIAL ORDER SOLICITED.

CURTIS & SON
PORTLAND, ME., U.S.A.

GERMAN ARMY PILE REMEDY

Each One Dollar Package Contains

**Liquid, Ointment,
and Pills.**

GOOD SELLER
GOOD MARGINS.
WELL ADVERTISED.

THE ONLY CURE FOR PILES

Write us to mention in your daily or weekly
papers that **GERMAN ARMY PILE REMEDY** may
be procured from you

The KESSLER DRUG CO.
Canadian Agency Toronto

Deafness	Absolutely Cured	Head Noises
Deafness	in 24 hours	Head Noises
Deafness	by using	Head Noises
Deafness	one bottle of	Head Noises
Deafness	"Auraline"	Head Noises
Deafness	Essence,	Head Noises
Deafness	the	Head Noises
Deafness	Great	Head Noises
Deafness	Indian	Head Noises
Deafness	Discovery	Head Noises
Deafness	Millions of	Head Noises
Deafness	Sufferers	Head Noises
Deafness	Cured	Head Noises
Deafness	after all else	Head Noises
Deafness	bad failed.	Head Noises
Deafness	Why	Head Noises
Deafness	remain deaf	Head Noises
Deafness	when a	Head Noises
Deafness	cure	Head Noises
Deafness	awaits you?	Head Noises
Deafness	Avoid the	Head Noises
Deafness	use of	Head Noises
Deafness	instruments	Head Noises
Deafness	and other	Head Noises
Deafness	injurious	Head Noises
Deafness	appliances.	Head Noises
Deafness	Send 2/9	Head Noises
Deafness	to the	Head Noises
Deafness	MACKAY	Head Noises
Deafness	Remedy Co.,	Head Noises
Deafness	104 High	Head Noises
Deafness	Holborn	Head Noises
Deafness	LONDON	Head Noises

ADS THAT — SELL GOODS

My offices are furnished with all of the things that I know of that conduce to the production of good advertising matter. I have files of the best retail advertising that has been done in the last five years. I have files of the best general advertising that has been done in the last five years. This means an accumulation of booklets, catalogues, newspaper articles, trade papers, and such matter duly classified and indexed, so that it is available at a moment's notice.

I have two good artists to assist me in my work. I have a regular correspondent in London, who sends me all that is latest and best in English art and advertising. I have a correspondent in Paris, who sends me all of the new and artistic printed things that appear there. I have everything I know of to assist me in producing the best work and giving the best service to advertisers. As fast as I learn of some new and necessary thing I get it.

With such an equipment I can prepare ads that sell goods. I believe I can prepare better ads than any other man in my line. I am not saying these things in a boasting spirit. The statements are merely made because they are facts.

The following list gives an approximate idea of my charges:

Letter of criticism and advice to retailers, \$1.; letter of advice in other lines, \$25.; trade paper ads, \$5. each and more; magazine ads, \$5. to \$75. each; illustration: retail ads, 12 for \$20; without cuts, 12 for \$10.

Charles Austin Bates,

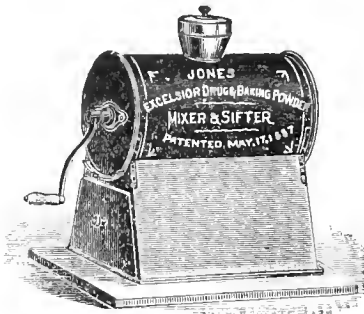
1410, 1412, 1413, 1414, 1415 Vanderbilt Building, New York

My new book is called "Good Advertising." It contains over 700 pages and costs \$5. There is in it every thing that I have been able to think of that will help business men to do profitable advertising. It is full of facts. There is no nonsense about it. Anybody who buys this book and is not satisfied may have his money back if he will return the book within two days after its receipt.

The paper upon which
this is printed was
made by

The E. B. EDDY Co.,
Limited, of HULL,

Who exclusively
supply
this newspaper.



IN THREE SIZES
5 lbs., 10 lbs., 25 lbs., at
\$6, \$12, and \$18 each

W. J. DYAS Toronto, Sole Agent for Canada.

OZONE

Ozone Specific is a valuable non-toxic, non-irritating antiseptic for either internal or external use. Our **Ozone**, concentrated form, is the most powerful blood purifier and germicide ever produced, and will be found a specific in all forms of Asthma, Bronchitis, Whooping Cough, Croup, Measles, or Diphtheria. For Catarrhal Troubles it will prove invaluable as a tonic and constitutional remedy, and is especially efficient in preventing or combating fermentation of food in the stomach, breaking up the worst forms of Dyspepsia and Sour Stomach.

For dressing Ulcerations of all kinds, preventing suppuration, and assisting towards rapid granulation and healing, **Ozone** has no equal.

Ozone is also used as a gargle for all manner of Throat Diseases; destroying all fermentation of the tissues brought forth by impregnation of disease germs. No germ life can exist where it is used.

All Druggists should keep this remedy, as it will prove a genuine friend to their customers.

Physicians owe it to themselves to try it.

OZONE SPECIFIC CO.

TORONTO, ONT.

FACT

DEAD

SURE

THE POOREST MAN ON EARTH

CAN BE CURED OF

THE TOBACCO HABIT

BY OUR METHOD

We offer by mail a Remedy that will FREE EVERY SLAVE to Tobacco in ten days

Read the strongest endorsement ever given any remedy, and if you are not fully satisfied write for leaflet containing over 6,000 testimonials.

UNITED STATES HEALTH REPORTS (Official Endorsement, June 19, 1895, page 10.)

"In the interest of the masses for whom these Reports are compiled, the United States Health Reports have examined and investigated many preparations having for their object the cure of the tobacco habit, but among them all we have no hesitancy in giving the editorial and official endorsement of these Reports to the remedy known as **Uncle Sam's Tobacco Cure**, manufactured by the Keystone Remedy Co., at 217 LaSalle Street, Chicago. We have demonstrated by personal tests that this antidote positively destroys the taste and desire for tobacco in ten days, leaving the system in a perfectly healthy condition, and the person using the same forever free from the habit.

"In the light of our examinations and tests of **Uncle Sam's Tobacco Cure**, we are but performing a duty we owe the public when we endorse the same, and stamp it as the crowning achievement of the nineteenth century in the way of destroying a habit as disgusting as it is common (for only \$1.00), hence we earnestly advise you to write them for particulars."

For Sale by all Wholesale Druggists

Customs Decisions

The following decisions have been made by the Board of Customs, and approved by the Honorable the Controller of Customs, under the provisions of section 9 of the Customs Act:

Clinical thermometers, 15 per cent.
 Urinometers, 15 per cent.
 Catheters, 15 per cent.
 Syringes, viz., hypodermic, lachrymal, hydrocele, sulpalpebral, and laryngeal, 15 per cent.
 Syringes, all others, dutiable according to the material of which they are made.
 Quassia chips, 20 per cent.
 Lactic acid, chemical, medicinal, or manufacturing purposes, free.
 Malt extracts, liquid, Pabst, Hoff's, and Dukehart's, 50 per cent.
 Ingluvin, proprietary medicine, 25 per cent.
 Olive oil, for use in lubricating machinery, free.
 Oxide of zinc and sulphide of zinc, 5 per cent.
 Pastilles for fumigating, 20 per cent.
 Alboline in liquid form, 50 per cent.
 Alboline, solid, 35 per cent.
 Ophthalmometers, 15 per cent.
 The following articles, being chemicals, are entitled to entry at 20 per cent. under them No. 481:

Acetanilid.	Ichthyol.
Antifebrin.	Iodal.
Antipyrin.	Lycetol.
Analgesin.	Lactophenin.
Analgen.	Morrhuel.
Antithermin.	Oil of tar.
Aristol.	Phenacetin.
Aseptol.	Phenylacetamide.
Coumarin.	Piperazin.
Chloralamide.	Pyrazole.
Chloride of ethyl.	Preservalin.
Creosotal.	Resorcin.
Diastase.	Salol.
Exalgen.	Salophen.
Euphorin.	Soziodol.
Formalhyde.	Strophanthine.
Formalin.	Spermin.
Guaiacol.	Salacetol.
Gaduol.	Somatose.
Heliotropine.	Savaline.
Hypnone.	Terpin hydrate.
Hypnai.	Trional.

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the special consideration of the Business Notices.

The popularity of Stearns' Cascara Aromatic is on the increase. It is claimed to be displacing other cascara preparations on the market. On this account there is a great deal of jealousy manifested by rival cascara manufacturers, but in spite of all they say against the preparation its sale is rapidly increasing. The reason for this is

on account of its palatability, and because it does the work. It is by far the most pleasant laxative in the materia medica. It is manufactured by Messrs. Frederick Stearns & Co., Windsor.

Thermometers.

Attention is directed to the advertisement of S. G. Denton, of London, Eng., in this issue.

Novelties in Show Cases.

It will interest every one of our readers to peruse the full page advertisement of the Canadian Specialty Co. in this issue. They have something novel in show cases, and at exceedingly low prices.

A Reliable Article.

Wilson's Root Beer, so well known to the trade, is advertised this month. It is one of the rapidly selling articles in this line, commands a good profit, and gives entire satisfaction. How is your stock?

The "Common Sense."

The roach and vermin exterminator manufactured by the Common Sense Manufacturing Co., of King street west, Toronto, has been proved to be a thoroughly reliable preparation, and one that can be confidently recommended. It commands a large sale wherever introduced. See advertisement on page 52b.

A New Favorite.

Odorama, a tooth powder of acknowledged superiority, may justly be termed the "New Favorite," as, although but a comparatively short time before the public, it is a distinct favorite wherever it has been used. It is handsomely put up, pleasantly flavored, and prepared from a formula of acknowledged merit. Have you got it in stock?

Egg Preserver.

The Excelsior Manufacturing Co., of Chicago, have established an agency in Hamilton, Ont., for their preparation, the Excelsior Egg Preserver. This is an article that should commend itself to druggists, and, we have no doubt, will command a ready sale. A liberal supply of printed matter is furnished to dealers, and it is also being extensively advertised.

Soda Water Fountains.

The Fletcher Manufacturing Co., of Toronto, are building some very handsome fountains for this year's trade, amongst them being the "Venice," which appears in this issue. Send for catalogue and prices, if you think of placing one in your store this season. This firm also handle fruit flavors, extracts, etc., and are prepared to quote close prices.

The Lynn Brother & Co. announce the arrival of a large shipment of sponges, which for price and quality are claimed to be exceptional in value. Their travelers are now showing samples of these goods.



Borine.

The maxim of the Stoic, that man should live only so long as he ought, and not so long as he is able, though the very best parent of suicide, we are willing to accept as regards our products. When any of them fall from the high standard to which they have been raised by us, then they ought not to live; but with the assurance that is born from constant, deserved praise showered upon us from all branches of the medical profession, the Borine Chemical Company have not the slightest fear in offering to the pharmaceutical profession Borine, with the firm resolve that it shall always retain its position in the front rank, and that in offering it to their customers they are offering them a remedial agent against which they will find there can nor will not ever at any time be the slightest question of unreliability. We would wish you to make a personal trial of it, and thus be in a position to say to your customers, Borine certainly fulfils all that is claimed for it. If you will send us a list of your leading physicians, we shall be most happy to send them, from time to time, samples, visiting lists, and also literature setting forth the advantages and benefits derived from the use of Borine, as set forth in the numerous testimonials received from some of the best men in the medical profession. We will do the advertising, you will reap the profit.

"The Old Reliable."

The Lightning Fly Paper, so favorably known to the drug trade of Canada for over forty years, is brought prominently to



the front in this month's issue by a full-page advertisement. An article that has stood the test for such number of years, and still commands the trade, cannot but be satisfactory alike to the dealer and consumer.

Pharmaceutical Products.

The firm of Scott & Macmillan, so well known to the trade as manufacturers of choice lines of perfumes, toilet waters, etc., have added to their plant, and are now engaged in the manufacture of high-class pharmaceutical products. Amongst their special preparations, their Aromatic Cascara has received very high encomiums from the faculty, and the large sale which it has already obtained, and the repeat orders which we understand, is invariably the outcome of the first sale, show that it is thoroughly appreciated.

The Seely Manufacturing Co.

The Seely Manufacturing Co. was established by Mr. J. M. Seely in 1862, at Detroit, Michigan. In 1880, Messrs. Geo. H. and Justin E. Smith became the proprietors, buying out Mr. Seely's interest in the business, which they have since conducted with unvarying and notable success. The old name still continues. Their present building, which is commodious and expressly constructed to meet the expansive nature of the industry,

WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc., will be inserted once free of charge. Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.

SITUATIONS WANTED.

SITUATION WANTED AS MANAGER OR ASSISTANT; graduate O.C.P.; over ten years' experience; first-class man in all respects. Address, DRUGGIST, P.O. Box 347, Brockville, Ontario.

FOR SALE.

SODA FOUNTAIN, CHEAP. Apply J. A. Wallace, Chemist, Brantford, Ont.

WANTED TO PURCHASE A SODA FOUNTAIN. Write particulars. Box 735, Brantford, Ont.

KODAK—NO. 3—WORTH \$50. WILL BE SOLD cheap. Perfectly new. Address Box J., CANADIAN DRUGGIST, Toronto.

FOR SALE—DRUG BUSINESS IN SMALL TOWN near Lake Erie. Invoice about \$1,000. Splendid opening for young man. No opposition. Good reasons for selling. Address, "X Rays," care of CANADIAN DRUGGIST.

DRUG BUSINESS—ONE OF THE BEST PAYING businesses in the Province, good prescription trade; stock about \$2,400; excellent opportunity. Ill-health reason for selling. Full particulars on application to "BENZON," care of this office.

NELSON'S SODA FOUNTS and SUPPLIES

458 Parliament Street

TORONTO



THE QUEEN PORTABLE FOUNT

Patented May 22nd, 1894.

MR. TOOGOOD, of Prince Albert, writes: "As I have closed the season for the Fount, I thought I would write you a few lines and let you know how I panned out. My cash sales were \$263.00. The cost of my Fount and materials to run the drinks from it, \$160.00; therefore, I made Fount clear and \$103.00 over and above all costs, or otherwise sixty five per cent. on my investment, or, in other words, \$103.00 and the Fount."

S. L. HOWE, Thornbury, Ont., Druggist, says: "I have the Fount running in First Class Order and doing well. The Generator works satisfactorily. I may say that everything is working well and most satisfactorily. I hope you may do well and sell lots of fountains."



UPRIGHT CYLINDER FOUNT

With Double and Single Stream each Arm.

Ornamental Top, Water Spray and connection complete.

THE PARISIAN.

Ave Maria

The latest Aristocratic, Fascinating Perfume is creating a
furore in the hearts of American Society.

Up-to-date Ideas in Perfumes Pay

One Oz. Glass Str. Bottle, 2 in Box, \$4.80

" " Screw Top " 1 " " 5.00

Two " " " 1 " " 8.00

SEND IN YOUR ORDER. EASILY SOLD.
SATISFACTION GUARANTEED.

NOT SOLD IN BULK

Send for Catalogue

Seely Manufacturing Co.

DETROIT, MICH.

WINDSOR ONT.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to March 10th, 1896.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

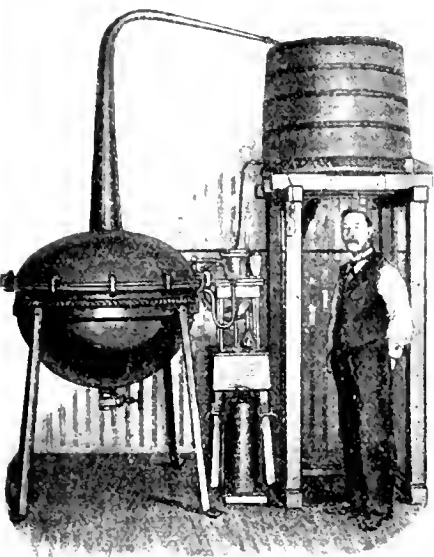
ALCOHOL, gal.	\$4 37	\$4 65
Methyl.	1 90	2 00
ALLSPICE, lb.	13	15
Powdered, lb.	15	17
ALON OZ.	40	45
ANODYNE, Hoffman's bot., lbs.	50	55
ARROWROOT, Bermuda, lb.	50	55
St. Vincent, lb.	15	18
BAL: AM, Fir, lb.	40	45
Copaiba, lb.	65	75
Peru, lb.	3 75	4 00
Tolu, can or less, lb.	95	1 00
BARK, Barberry, lb.	22	25
Bayberry, lb.	15	18
Buckthorn, lb.	15	17
Canella, lb.	15	17
Cascara, Sagrada.	25	30
Cascarilla, select, lb.	18	20
Cassia, in mats, lb.	18	20
Cinchona, red, lb.	60	65
Powdered, lb.	65	70
Yellow, lb.	35	40
Pale, lb.	40	45
Elm, selected, lb.	18	20
Ground, lb.	17	20
Powdered, lb.	20	28
Hemlock, crushed, lb.	18	20
Oak, white, crushed lb.	15	17
Orange peel, bitter, lb.	15	16
Prickly ash, lb.	35	40
Sassafras, lb.	15	16
Soap (quillaya), lb.	13	15
Wild cherry, lb.	13	15
BEANS, Calabar, lb.	45	50
Tonka, lb.	1 50	2 75
Vanilla, lb.	8 00	8 50
BERRIES, Cubeb, sifted, lb.	30	35
powdered, lb.	35	40
Juniper, lb.	7	10
Ground, lb.	12	14
Prickly ash, lb.	40	45
BUDS, Balm of Gilead, lb.	55	60
Cassia, lb.	25	30
BUTTER, Cacao, lb.	75	80
CAMPHOR, lb.	85	90
CANTHARIDES, Russian, lb.	1 40	1 50
Powdered, lb.	1 50	1 60
CAPSICUM, lb.	25	30

Powdered, lb.	\$ 30	35
CARBON, Bisulphide, lb.	17	18
CARMINE, No. 40, oz.	40	50
CASTOR, Fibre, lb.	20 00	20 00
CHALK, French, powdered, lb.	10	12
Precip., see Calcium, lb.	10	12
Prepared, lb.	5	6
CHARCOAL, Animal, powd., lb.	4	5
Willow, powdered, lb.	20	25
CLOVE, lb.	16	17
Powdered, lb.	17	18
COCHINEAL, S.G., lb.	40	45
COLLODION, lb.	75	80
Cantharidal, lb.	2 50	2 75
CONFECTION, Senna, lb.	40	45
Creosote, Wood, lb.	2 00	2 50
CUTTLEFISH BONE, lb.	25	30
DENTRINE, lb.	10	12
DOVER'S POWDER, lb.	1 50	1 60
ERGOT, Spanish, lb.	75	80
Powdered, lb.	90	1 00
Ergotin, Keith's, oz.	2 00	2 10
EXTRACT, Logwood, bulk, lb.	13	14
Pounds, lb.	14	17
FLOWERS, Arnica, lb.	15	20
Calendula, lb.	55	60
Chamomile, Roman, lb.	25	30
German, lb.	40	45
Elder, lb.	20	22
Lavender, lb.	12	15
Rose, red, French, lb.	1 60	2 00
Rosemary, lb.	25	30
Saffron, American, lb.	65	70
Spanish, Val'a, oz.	1 00	1 25
GELATINE, Cooper's, lb.	75	80
French, white, lb.	35	40
GLYCERINE, lb.	22	25
GUARANA, lb.	200	2 25
Powdered, lb.	2 25	2 50
GUM ALOES, Cape, lb.	18	20
Barbadoes, lb.	30	50
Socotrine, lb.	65	70
Asafetida, lb.	40	45
Arabic, Ist, lb.	65	70
Powdered, lb.	75	85
Sifted sorts, lb.	40	45
Sorts, lb.	25	30
Benzoil, lb.	50	1 00
Catechu, Black, lb.	9	20
Gamboge, powdered, lb.	1 20	1 25
Guaiac, lb.	50	1 00
Powdered, lb.	90	95
Kino, true, lb.	2 00	2 25

Myrrh, lb.	\$ 45	\$ 48
Powdered, lb.	55	60
Opium, lb.	3 80	4 00
Powdered, lb.	5 50	5 75
Scammony, pure Resin, lb.	12 80	13 00
Shellac, lb.	40	45
Bleached, lb.	45	50
Spruce, true, lb.	30	35
Tragacanth, flake, 1st, lb.	75	80
Powdered, lb.	1 00	1 10
Sorts, lb.	45	65
Thus, lb.	8	10
HERB, Althea, lb.	27	30
Bitterwort, lb.	36	40
Burdock, lb.	16	18
Boneset, ozs, lb.	15	17
Catnip, ozs, lb.	17	20
Chiretta, lb.	25	30
Coltsfoot, lb.	20	38
Feverfew, ozs, lb.	53	55
Grindelia robusta, lb.	45	50
Horehound, ozs, lb.	18	20
Jaborandi, lb.	45	50
Lemon Balm, lb.	38	40
Liverwort, German, lb.	38	40
Lobelia, ozs, lb.	15	20
Motherwort, ozs, lb.	20	22
Mullein, German, lb.	17	20
Pennyroyal, ozs, lb.	18	20
Peppermint, ozs, lb.	21	22
Rue, ozs, lb.	30	35
Sage, ozs, lb.	18	20
Spearmint, lb.	21	25
Thyme, ozs, lb.	18	20
Tansy, ozs, lb.	15	18
Wormwood, oz.	20	22
Yerba Santa, lb.	38	44
HONEY, lb.	13	15
Hops, fresh, lb.	20	25
INDIGO, Madras, lb.	75	80
INSECT POWDER, lb.	30	32
ISINGLASS, Brazil, lb.	2 00	2 10
Russian, true, lb.	0 00	0 50
LEAF, Aconite, lb.	25	30
Bay, lb.	18	20
Belladonna, lb.	25	30
Buchu, long, lb.	50	55
Short, lb.	25	27
Coca, lb.	35	40
Digitalis, lb.	15	20
Eucalyptus, lb.	18	20
Hyoscyamus	20	25
Matico, lb.	70	75

Senna, Alexandria, lb.	\$ 25	\$ 30	Queen of the Meadow, lb.	\$ 18	\$ 20	Valerianate, oz.	\$ 55	\$ 60
Tinnevely, lb.	15	25	Rhatany, lb.	20	30	AMYL, Nitrite, oz.	16	18
Stramonium, lb.	20	25	Rhubarb, lb.	75	2 50	ANTINERVIN, oz.	85	00
Uva Ursi, lb.	15	18	Sarsaparilla, Hond, lb.	40	45	ANTIKAMNIA,	1 30	1 35
LEECHES, Swedish, doz.	1 00	1 10	Cut, lb.	50	55	ANTIPYRIN, oz.	1 10	1 20
LICORICE, Solazzi.	45	50	Senega, lb.	55	65	ARISTOL, oz.	1 85	2 00
Pignatelli.	35	40	Squill, lb.	13	15	ARSENIC, Donovan's sol., lb.	25	30
Grasso.	30	35	Stillingia, lb.	22	25	Fowler's sol., lb.	10	13
Y & S—Sticks, 6 to 1 lb., per lb.	27	30	Powdered, lb.	25	27	Iodide, oz.	50	55
“ Purity, 100 sticks in box	75	75	Unicorn, lb.	38	40	White, lb.	6	7
“ Purity, 200 sticks in box	1 50	1 50	Valerian, English, lb. true.	20	25	ATROPINE, Sulp. in $\frac{1}{2}$ ozs. Soc.,	6 00	6 25
“ Acme Pellets, 5 lb. tins.	2 00	2 00	Virginia, Snake, lb.	40	45	oz.	35	40
“ Lozenges, 5 lb. tins.	2 00	2 00	Yellow Dock, lb.	15	18	BISMUTH, Ammonia-citrate, oz.	50	55
“ Tar, Licorice, and Tolu,			RUM, Bay, gal.	2 50	2 75	Iodide, oz.	20	25
5 lb. tins.	2 00	2 00	Essence, lb.	3 00	3 25	Salicylate, oz.	1 75	2 00
LUTULIN, oz.	30	35	SACCHARIN, oz.	1 25	1 50	Subcarbonate, lb.	1 40	1 60
LYCOPodium, lb.	70	80	SEED, Anise, Italian, sifted, lb.	13	15	Subnitrate, lb.	7	8
MACE, lb.	1 20	1 25	Star, lb.	35	40	BORAX, lb.	8	9
MANNA, lb.	1 60	1 75	Burdock, lb.	30	35	Powdered, lb.	8	13
Moss, Iceland, lb.	9	10	Canary, bag or less, lb.	5	6	BROMINE, oz.	20	25
Irish, lb.	12	13	Caraway, lb.	10	13	CADMIUM, Bromide, oz.	45	50
MUSK, Tonquin, oz.	46	50	Cardamom, lb.	1 25	1 50	Iodide, oz.	60	65
NUTGALLS, lb.	21	25	Celery	25	30	CAFFEINE, oz.	60	65
Powdered, lb.	25	30	Colchicum	50	60	Citrate, oz.	1 50	1 60
NUMEGS, lb.	1 00	1 10	Coriander, lb.	10	12	CALCIUM, Hypophosphite, lo.	95	1 00
NUX VOMICA, lb.	10	12	Cumin, lb.	15	20	Iodide, oz.	35	38
Powdered, lb.	25	27	Fennel, lb.	15	17	Phosphate, precip., lb.	5	6
OAKUM, lb.	12	15	Fennigreek, powdered, lb.	7	9	Sulphide, oz.	10	12
OINTMENT, Merc., lb. $\frac{1}{2}$ and $\frac{1}{2}$.	45	50	Flax, cleaned, lb.	3 1	4	CERIUM, Oxalate, oz.	15	18
Citrine, lb.	20	22	Ground, lb.	4	5	CHINOIDINE, oz.	1 25	1 30
PARALDEHYDE, oz.	12	13	Hemp, lb.	11	12	CHLORAL, Hydrate, lb.	75	80
PEPPER, black, lb.	15	10	Mustard, white, lb.	15	20	Croton, oz.	60	1 90
Powdered, lb.	3	4	Powdered, lb.	25	30	CHLOROFORM, lb.	25	30
PITCH, black, lb.	10	12	Pumpkin	65	70	CINCHONINE, sulphate, oz.	15	20
Bergundy, true, lb.	25	3 25	Quince, lb.	8	9	CINCHONIDINE, Sulph., oz.	5 50	6 50
PLASTER, Calcined, lbb. cash.	12	13	Rape, lb.	50	55	COCAINE, Mur., oz.	70	75
Adhesive, yd.	65	70	Strophanthus, oz.	22	25	CODEIA, $\frac{1}{2}$ oz.	65	70
Belladonna, lb.	80	85	Worm, lb.	25	30	COLLOIDION, lb.	6	7
Galbanum Comp., lb.	25	30	SEIDLITZ MIXTURE, lb.	10	12	COPPER, Sulph. (Blue Vitriol) lb.	65	70
Lead, lb.	1 00	1 10	SOAP, Castile, Mottled, pure, lb.	15	16	Iodide, oz.	1	3
POPPY HEADS, per 100.	2 1	3	White, Conti's, lb.	25	35	COPPERAS, lb.	1 60	1 65
ROSIN, Common, lb.	3 1	4	Powdered, lb.	15	25	DIURETIN, oz.	75	80
White, lb.	25	30	Green (Sapo Viridis), lb.	65	70	ETHER, Acetic, lb.	40	50
RESORCIN, white, oz.	28	30	SPERMACETI, lb.	75	80	Sulphuric, lb.	1 00	1 10
ROCHELLE SALT, lb.	22	25	TURPENTINE, Chian, oz.	50	55	EXALGINE, oz.	25	30
ROOT, Aconite, lb.	30	35	Venice, lb.	40	45	HYOSCYAMINE, Sulp., crystals, gr.	4 75	5 50
Althea, cut, lb.	15	10	WAX, White, lb.	5	6	IODINE, lb.	6 00	7 00
Belladonna, lb.	27	30	Yellow.	10	12	IODOFORM, lb.	1 40	1 50
Blood, lb.	15	18	WOOD, Guaiac, rasped.	5	6	IODOL, oz.	80	85
Bitter, lb.	15	18	Quassia chips, lb.	5	6	IRON, by Hydrogen.	15	16
Blackberry, lb.	20	25	Red Saunders, ground, lb.	30	35	Carbonate, Precip., lb.	30	35
Burdock, crushed, lb.	20	25	Santal, ground, lb.	5	6	Sacch., lb.	45	55
Calamus, sliced, white, lb.	30	35				Chloride, lb.	13	16
Canada Snake, lb.	15	20	CHEMICALS.			Sol., lb.	90	1 00
Cohosh, black, lb.	40	45	ACID, Acetic, lb.	12	13	Citrate, U.S.P., lb.	70	75
Colchicum, lb.	20	22	Glacial, lb.	45	50	And Ammon., lb.	1 50	3 00
Columbo, lb.	25	30	Benzoic, English, oz.	10	12	And Quinine, lb.	18	30
Powdered, lb.	38	40	German, oz.	13	14	Quin. and Stry., oz.	13	15
Coltsfoot, lb.	20	25	Boracic, lb.	28	30	And Strychnine, oz.	50	55
Comfrey, crushed, lb.	13	14	Carbolic Crystals, lb.	2 10	2 15	Dialyzed, Solution, lb.	55	60
Curcuma, powdered, lb.	15	18	Calvert's No. 1, lb.	1 35	1 40	Ferrocyanide, lb.	25	30
Dandelion, lb.	15	20	No. 2, lb.	45	50	Hypophosphites, oz.	40	45
Elecampane, lb.	15	18	Citric, lb.	10	12	Iodide, oz.	40	45
Galangal, lb.	22	25	Gallic, oz.	30	35	Syrup, lb.	5	6
Gelsemium, lb.	9	10	Hydrobromic, diluted, lb.	1 50	1 60	Lactate, oz.	15	16
Gentian or Genitan, lb.	10	12	Hydrocyanic, diluted, oz. bottles	22	25	Permanganate, solution, lb.	7	9
Ground, lb.	13	15	doz.	3	5	Phosphate scales, lb.	80	85
Powdered, lb.	18	20	Lactic, concentrated, oz.	18	20	Sulphate, pure, lb.	8	10
Ginger, African, lb.	20	22	Muriatic, lb.	10 1	13	Exsiccated, lb.	80	85
Jo., lb.	27	30	Chem. pure, lb.	25	30	And Potass. Tartrate, lb.	80	85
Jamaica, blechd., lb.	30	35	Nitric, lb.	75	80	And Ammon Tartrate, lb.	13	15
Jo., lb.	4 50	4 75	Chem. pure, lb.	12	13	LEAD, Acetate, white, lb.	7	8
Ginseng, lb.	75	80	Oleic, purified, lb.	1 00	1 10	Carbonate, lb.	35	40
Golden Seal, lb.	90	95	Oxalic, lb.	13	17	Iodide, oz.	7	9
Gold Thread, lb.	12	15	Phosphoric, glacial, lb.	30	35	Red, lb.	4	5
Hellebore, white, powd., lb.	18	20	Dilute, lb.	1 00	1 10	LIME, Chlorinated, bulk, lb.	6	7
Indian Hemp.	1 75	2 00	Pyrogallie, oz.	2 1	2 1	In packages, lb.	30	35
Ipecac, lb.	2 00	2 25	Salicylic, white, lb.	5	6	LITHIUM, Bromide, oz.	30	35
Powdered, lb.	55	60	Sulphuric, carboy, lb.	18	20	Carbonate, oz.	25	30
Jalap, lb.	60	65	Bottles, lb.	80	85	Citrate, oz.	50	55
Powdered, lb.	40	90	Chem. pure, lb.	38	40	Iodide, oz.	35	40
Kava Kava, lb.	12	15	Tannic, lb.	75	80	Salic ate, oz.	55	60
Licorice, lb.	13	15	Tartaric, powdered, lb.	4	5	MAGNESIUM, Calc., lb.	18	20
Powdered, lb.	13	18	ACETANILID, lb.	13	3	Carbonate, lb.	35	40
Mandrake, lb.	19	40	ACONITINE, grain.	3	4	Citrate, gran., lb.	1 1	3
Masterwort, lb.	30	35	ALUM, cryst., lb.	10	12	Sulph. (Epsom salt), lb.	55	60
Orris, Florentine, lb.	40	45	Powdered, lb.	80	85	MANGANESE, Black Oxide, lb.	55	60
Powdered, lb.	40	45	AMMONIA, Liquor, lb., .880.	14	15	MENTHOL, oz.	75	80
Pareira Brava, true, lb.	40	45	AMMONIUM, Bromide, lb.	35	40	MERCURY, lb.	1 25	1 30
Pink, lb.	40	45	Carbonate, lb.	40	45	Ammon (White Precip.)	85	90
Parsley, lb.	20	25	Iodide, oz.	12	16	Chloride, Corrosive, lb.	1 00	1 10
Pleurisy, lb.	15	18	Nitrate, crystals, lb.			Calomel, lb.	60	65
Poke, lb.			Muriate, lb.			With Chalk, lb.		

is recognized as the largest perfume laboratory in the country, and is suitably provided with every consistent facility for the expeditious and thorough management of the varied details of the extensive manufacture of perfumery and toilet articles. The company operate their own electric plant, with a capacity of 350 lights. Over 100 hands are given employment. The Seely Manufacturing Co. enjoys the distinction of being the only manufacturer of its character in the world, doing its own glass cutting, engraving, decorating, and stoppering. The company also produce their own wood and paper boxes, do almost entirely their own printing, and carry a large and carefully selected stock of raw materials employed in the products of perfumery, toilet preparations and novelties. The company's perfumer was for four years the perfumer to the English court. He served an apprenticeship of seven years in London, and was afterwards manager of one of the largest perfume establishments in that city. He has been connected with the Seely



Manufacturing Co. fourteen years. The company import largely of raw material from every quarter of the globe, and their various preparations are standard in all leading markets. Their specialties are the manufacture of fine perfumes, of which they produce over 100 different varieties. They also manufacture from 60 to 70 kinds of flavoring extracts, and toilet preparations of all kinds in large quantities. These goods have acquired a generally recognized reputation, and are regarded as the most appreciable by the dealer and consumer everywhere. The company import largely of glassware from Bohemia, which ware is highly esteemed for its unique essentials of beauty and durability. The Orchid perfumes, of original manufacture and introduction by the Seely Manufacturing Co., are justly regarded by the elite as the acme of delicate and refined characteristics, and a treasure dear to the female heart. They are quadruple in strength. Branch offices have been established in New York City,

Philadelphia, Baltimore, St. Louis, San Francisco, and also in Windsor, Ontario, which greatly enhance the trade relations in the districts tributary to these important markets. The Seely Manufacturing Co. established its Canadian offices and laboratory in Windsor, Ont., in 1891, in order to manufacture especially for the Canadian trade. Their business in Canada since that time has been steadily increasing, and has assumed large proportions. They have the same facilities in their Windsor laboratory for turning out high grade goods as they have in their Detroit house. The two laboratories of the Seely Manufacturing Co., situated one on either side of the Detroit River, in Detroit, Mich., and Windsor, Ont., have proven a valuable auxiliary in these cities' commercial and manufacturing progress, and represent their most important and enterprising industries. The company courteously invite their friends at any time to visit their works, and will endeavor to interest any who will honor them with a call. We give here a cut of a new still recently put into the laboratory of this house. The still has a capacity of 180 gallons, being one of the largest of the kind in use for the purpose.

Magazines.

Mr. Francis Bellamy, who for nearly six years was one of the editors of *The Youth's Companion*, has been added to the editorial staff of *The Ladies' Home Journal* as one of Mr. Bok's principal associates. The new editor is a cousin of Edward Bellamy, author of "Looking Backward."

A teacher told the pupils to make up a sentence or "story" from the suggestive words "boys," "bees," "bear." Quick as flash up came one hand, "I have it." "What is it, Tommy?" inquired the teacher. "Boys bees bare when they go in swimming," was the astonishing reply! A better sentence would have been—"Boys will be interested in *bees* and other insects, *bears* and other animals as well as birds, flowers, etc., as described in *The Observer*, Portland, Conn. Sample 10 cents. One year, \$1.

In 1884, Eugene Field wrote a story which he called "The Werewolf." When it was finished he laid it aside, and a year afterward entirely rewrote it. In 1886 he again took it up and revised it, and during the nine years between that time and his death in November last he rewrote it eight times. His last revision pleased him, and he decided to print it. But death came too suddenly, and the story was found, unpublished, amongst his effects. Mrs. Field, concluding to have the story appear, gave it to the editor of *The Ladies' Home Journal*, in which magazine all of Mr. Field's work, outside of his newspaper articles, was presented to the public. The story will be printed in the next issue of the *Journal*, strikingly illustrated by Mr. Howard Pyle.

The great "Lee of Virginia" series, in *Frank Leslie's Popular Monthly*, is continued in the March number with a picturesque and superbly illustrated paper devoted to Major General Henry Lee, of Revolutionary fame. Other illustrated articles in the March *Frank Leslie's* are: "The New South," by the Hon. John V. Foster; "In old Virginia," by Kate Mason Rowland; "A Winter in Lombardy," by Lena L. Pepper; "Woman's Work and Ministrations," by Alvin S. Southworth; "The Memory of Robert Burns," by Margaret E. Leicester Addis; "Society Plays Golf," by Diana Crossways; and "A Winter Vagary," by William Potts, of "Underledge." Among the contributors of fiction and poetry are Anna Catharine Greene, Cleveland Moffett, Francis Swann Williams, Charles Edwards, Henry Tyrrell, and Georgia Roberts.

The first of a series of articles on "The Young People of the White House," by Joanna K. Nicholls, is given, with numerous illustrations, in the March number of *Frank Leslie's Pleasant Hours for Boys and Girls*. This number has many other good things that will delight its youthful readers, among them a short boating story by James Otis; a very pretty cat-show story by Rosalie M. Jonas; a thrilling account of "A Wild Whirl Down the Loops," by J. Macdonald Oxley; the second paper of Frank Lee Farnell's interesting series on "The Favorite Story-writers for Young People," in which are given portraits of Horatio Alger, Jr., James Otis, and Sophie Swett; an article on "Dainty Work for Girls," by Lila Graham Alliger; a bright little story by Helen Corinne Bergen; the conclusion of the two serials by Edward S. Ellis and Jeanette H. Walworth; some illustrated poems; two new games; a chat on juvenile literature by the editor; and a number of prize puzzles.

"One Thousand Modern and Reliable Formulæ." Atlas Chemical Company, Sunderland, England. From the *British and Colonial Druggist*, January 31st, 1896. This book is intended to "place within the reach of small manufacturers, managers, and skilled workmen the means of producing the different commodities for which recipes are given." It makes the chemist and druggist, for instance, independent, if he likes, of the paint mixer and grinder, including, as it does, "nearly 1,000 formulæ for producing all kinds of colors and other chemical compositions." There are formulæ in this book which it would have been impossible for any outside person to obtain except at very great trouble. Those that will interest our readers most are for paints used by house decorators, varnishes, polishing pastes, infants' foods, egg baking, and custard powders, disinfectants, perfumes, and soaps. For the last-named alone, about twenty recipes are given, and those for perfumes are more numerous still. The recipes, as far as we have been able to examine them, bear the stamp of practical

ance to our readers in a matter of the greatest importance to the live business man, by formulating distinctive lines of advertising as adapted to various localities. We regret to say that the parties to whom this work was entrusted have not met our expectations in the matter, and the system adopted by them did not meet our views. We have decided, therefore, to leave this matter in abeyance for a time. As evidence of the desire for a bureau of the nature described, the numbers of enquiries received from all parts of the Dominion amply testifies, and we only regret the necessity for postponing it for a time.

Notes from the Rank and File of the O.S. of R.D.

We are glad to notice the prompt response of members to the circular letter of the secretary sent out April 10th, and by noon of the 13th one hundred replies were received enclosing the amount asked for. Below we give a few of the letters received, showing the ready response and unanimity prevailing.

We are glad to see that you have accomplished so much, and hope that soon your efforts will be crowned with complete success.

Very truly yours,
ROBERT PHILLIPS & SON.

Fergus.

With best wishes for the ultimate success of our society, I remain,

Yours in patience,
J. W. HOUSTON.

Toronto.

Allow me to say that I fully appreciate the importance of the work you are engaged in, and the zeal you have displayed in your endeavor to make it a success.

Sincerely yours,
A. W. GISSING.

Princeton.

You are doing well.

Yours truly,
C. E. NASMYTHE.

Stratford.

It is a pleasure for us to remit you this small amount, as we have saved more than one dollar since prices have been raised, and sincerely hope you will meet with every success.

Yours truly,
PEARSALL & KENT.

Port Rowan.

I trust the druggists will see the necessity of responding to the call, for I am satisfied that if we stick together now we will succeed, and if we fail we are hopelessly gone for all time.

Respectfully yours,
JOHN GAYFER.

Ingersoll.

It affords me the greatest pleasure in the world to enclose you one dollar, and if by paying fifty dollars the thing could be rectified at once I would gladly do so; but, I suppose, in the language of Scripture, "Patience must have her perfect work." Hope you are prospering in your town.

Yours very truly,
W. H. GILPIN.

Toronto.

Enclosed the necessary greece. "More power to your elbow."

Yours fraternally,
Durham. R. MACFARLANE, JR.

I never paid a dollar more freely in my life, and would have enclosed five if I had been asked to, although we have never been troubled with cutting here among ourselves. There are three of us here in this small place, and am happy to say that common sense and brotherly love have always reigned among us, but we are feeling the influence for good on the outside, caused by the workings of our society. May you live long and prosper in the good work you have begun for the retail druggists of the Dominion!

Yours truly,
C. THOMSON.

Tilsonburg.

Hoping that sufficient of the sinews of war may be forthcoming to meet all the requirements for putting the society on a good basis, I am,

Yours sincerely,
JAS. CLARK.

Renfrew.

Trusting you may secure success in your very laborious undertaking, which I expect would make a Wellington or a Napoleon lose heart, I must confess I admire your pluck when I consider how much work you must perform to procure successful results.

JOHN URQUHART.

Oakville.

Everything is working well in this part, and already I have saved a number of dollars in keeping prices up.

Yours,
WM. FEAD.

Cannington.

Everything is going on nicely in Peterboro and surrounding places. Wishing you all success, I am,

Yours respectfully,
W. WALSH.

Peterboro.

I trust every druggist throughout the province will promptly respond, and so help on the good work. It should be very gratifying to every druggist to see the work you have done in so short a time, and I hope they will all back you up with their encouragement and money.

Yours faithfully,
A. W. MANLEY.

Owen Sound.

I am much pleased at the success so far attained, and which I think is due to

the energy of the officers. Will be pleased to give any assistance, either pecuniary or otherwise, in my power.

N. A. BOSWORTH.

Stratford.

My neighbor and I are both well satisfied with the work done by the association thus far, and cheerfully contribute our mite. Trusting the association may continue to prosper, believe me,

Yours truly,
R. ROBINSON.

Toronto.

I cheerfully contribute to help carry on the good work.

Yours fraternally,
E. J. JOHNS.

Stratford.

Push the old chariot along!

Yours sincerely,
G. W. W. DAVIDSON.

Hamilton.

We feel confident that it will do us two hundred dollars worth of good if we can complete the object for which we are aiming. We feel the cutting of prices in Toronto nearly as much as the Toronto druggists do, being only twenty miles from Toronto, and the G.T.R. issue once a week round trip tickets at single fare, and we will welcome the day when all patents are sold at a standard price and they will be if we are true to each other.

Yours truly,
THE MARKHAM DRUG STORE.
per R.A.W.

Markham.

The "Friendly List."

The following is the friendly list up to April 1st, by which it will be seen that nearly all the wholesale trade doing business with druggists have signed the agreement submitted to them:

WHOLESALE DRUGGISTS AND PATENT MEDICINE DEALERS.

The Lyman Bros. & Co. (Limited), Toronto.

Elliot & Co., Toronto.

Lyman, Knox & Co., Toronto

Evans & Sons (Limited), Toronto.

Lyman Sons & Co., Montreal.

Kerry, Watson & Co., Montreal.

Evans & Sons (Limited), Montreal.

Lyman, Knox & Co., Montreal.

J. Winer & Co., Hamilton.

Arch. Wilson & Co., Hamilton.

H. Skinner & Co., Kingston.

The London Drug Co., London.

James A. Kennedy & Co., London.

T. W. Chamberlain & Co., Prescott.

T. B. Barker & Sons, St. John, N.B.

S. McDiarmid, St. John, N.B.

PATENT AND PROPRIETARY MEDICINE JOBBERS.

Northrop & Lyman Co. (Limited), Toronto.

T. Milburn & Co., Toronto.

F. E. Dalley, Hamilton.

Protonuclein...

Tablets. (100 3-grain Tablets in bottle) per doz. \$9.00
 " (1000 3-grain Tablets in bottle) . each 6 75
 Powder. (1 oz. bottles) per doz. 5.00
 " (8 oz. in bottle) each 5.50

REED & CARNRICK,
 30 Wellington St. East, TORONTO.

Duncan, Flockhart & Co.'s

Blaud Pill Capsules

Are soft and flexible Never become oxidized
 Never become hard Never vary in strength

These Capsules are put up in 1, 2, and 3 pill sizes, with or without Arsenic, and can be supplied in boxes of 25 or 100 (each). They are prepared by a unique and original process, which entirely overcomes the tendency to **hardening** which is so common in the **Blaud Pills**.

R. L. GIBSON,
 30 Wellington St. East,
TORONTO.

Wampole's

BEEF, WINE, AND IRON.

In Pint Bottles.....\$5 00 per doz.
 Winchester (1/2 Imp. Gal.)..... 2 00 each.
 Imp. Gallon, in 5 gal. lots, and over 3 50 per gal.

With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

1/4 Gross lots, and over.....\$60 00 per gross.
 (Packed in One-Dozen Cases.)

We use a Pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

We invite comparison with other manufacturers, and will cheerfully furnish samples for that purpose.

Your early orders and enquiries solicited through Wholesale Jobbers or direct from us.

Henry K. Wampole & Co.,
 MANUFACTURING PHARMACISTS,
Philadelphia, Pa.

Canadian Branch:

36 and 38 Lombard Street, TORONTO.



SEASON 1896.

BILLINGS, CLAPP, & CO.'S

IDEAL
LEMONADE
 and
ROOT BEER
TABLETS

Put up in 10 Cent Bottles

Are the best Tablets we have handled, and have given general satisfaction.

They are to the front again this season.

Price: 85 Cents a dozen or \$10.00 a gross.

For the Soda Water Fountain.

French, Cave & Co.'s, Crushed Violet, Red Orange Phosphate, also Tangerette, Lime Phosphiz, Mulford's Pure Grape Juice, Murchison's Acid Phosphate.

Fresh Stock of

Pepsin Chips and Fruit Chips, Tolu Sugar Plums, Sweet Wheat, After Dinner and Celery Pepsin Gums; Heide's Licorice Pastilles, Chapineau's Cachets, etc.

Adam's Root Beer Extract

15 and 25 cent bottles.

CANADIAN SPECIALTY CO.

38 Front Street East, Toronto, Ont.

FOR SALE: 1 Kingery Ice Breaker and Shaver combined for counter



The
Silver
Truss

IS A NEW INVENTION,
 NEW IN PRINCIPLE,
 NEW IN DESIGN,
 NEW IN APPLICATION,
 and the MOST PERFECT KNOWN.

The great success of this Truss in holding with comfort all kinds of hernia, whether adults, youths, or infants, all over Canada, the United States, and Europe, is phenomenal. They have been adopted by leading hospitals, surgeons, and rupture specialists of the United States, and by Westminster and Guy's Hospitals, London, Eng. No greater recommendation could be accorded any appliance than its adoption by the physicians and surgeons comprising the staffs of these hospitals, which rank among the largest and best in the world.

MANUFACTURED BY

THE SMITH MANUF'G CO., GALT, ONT.

PROFIT FROM
100 to 200
PER CENT.

EVERY JOBBER
SELLS
TANGLEFOOT.



REGULAR

ONE BOX, 45 cents.
ONE CASE, \$4.00.
(10 Boxes)
FIVE CASES, \$3.75.

"LITTLE"

ONE BOX, 18 cents.
ONE CASE, \$2.10.
(15 Boxes)
Size, 5 1/4 x 9 inches.

..TANGLEFOOT..

SEALED

STICKY FLY PAPER.

The Difference....

Some Leaks at the Edges.
Some Soaks Through the Paper.
Some Dries After Short Exposure.
Some Tears Easily in Opening.
Some Spoils over Winter.
Some Allows Flies to Escape.

TANGLEFOOT
DOES NOT!

HOLDERS are no longer packed with TANGLEFOOT, but are put up separately in boxes of fifty, which job for \$1.00.

G. C. Briggs & Sons, Hamilton.
 Brayley Sons & Co., Montreal, Que.
 Dr. E. Morin & Co., Quebec, Que.
 E. Gironx Frère, Quebec, Que.
 W. Brunet & Co., Quebec, Que.
 W. B. MacDonald, Ottawa.

MANUFACTURERS.

J. C. Ayer & Co., Lowell, Mass.
 Wells, Richardson & Co., Montreal.
 Scott & Bowne, New York.
 R. V. Pierce, Buffalo.
 S. G. Detchon, Toronto.
 Warner's Safe Cure Co., Rochester.
 Edmanson, Bates Co., Toronto.
 J. Gustave Laviolette, Montreal.
 The Dodds Medicine Co. (Limited), Toronto.
 The T. A. Slocum Chemical Co. (Limited), Toronto.
 The Woodward Medicine Co. (Celery King), Toronto.
 D. Densmore & Co., Toronto.
 J. A. Gibbons & Co., Toronto.
 J. H. Sanderson, Richmond Hill.
 The Balm Medicine Co., Toronto.
 Radway & Co., Montreal.
 Allan & Co., Toronto.
 C. A. Vogeler & Co., Toronto.
 The Ontario Chemists' Manufacturing Co., Hamilton.
 Kobo Medicine Co., Toronto.
 W. Bryers Barkwell, London.
 E. Millar & Co., Dresden.
 K. D. C., New Glasgow, N.S.
 Toronto Pharmacal Co., Toronto.
 Home Health Medicine Co., Toronto.
 S. S. Ryckman Medicine Co., Hamilton.

PHARMACEUTICAL PRODUCTS.

Parke, Davis & Co., Detroit and Walkerville.
 F. Stearns & Co., Detroit and Windsor.
 Henry K. Wampole & Co., Toronto.

MANUFACTURER'S AGENTS.

Gilmour Bros. & Co., Montreal.
 Representing—
 Johnson & Johnson,
 The Papoid Co.,
 Upjohn Pill and Granule Co.
 Dr. Bengue.
 R. L. Gibson, Toronto.
 Representing—
 Maltine Manufacturing Co.
 Reed & Carnrick,
 N.Y. Pharmacal Association
 Arlington Chemical Co.,
 Palisade Manufacturing Co.

PERFUMERS.

Seely Manufacturing Co., Windsor.

RUBBER GOODS.

Toronto Rubber Co., Toronto.

Montreal Retail Drug Association.

A well-attended meeting of the Montreal retail druggists of Montreal was held in the college building on March 12th.

The president of the provincial association, Mr. J. Contant, occupied the chair. In an opening address he explained that the meeting had been called to hear a report of the work done by the sister society in Ontario, and also to advance the

cause in their own province. Mr. Pepper, secretary of the Ontario society, in response to a call from the chairman, gave a detailed account of the inception and progress of the society in their province, dealing with the condition of affairs which brought about its formation, its wonderful growth, and the benefits already experienced in many parts. The one point most emphasized by Mr. Pepper was that of co-operation. In this lay our only hope of securing permanent benefit, and this co-operation must be between members of the trade in all parts of the Dominion.

Mr. Gibbard followed, dealing with the subject along the same lines.

Much information as to detail work of the society was brought out in answer to questions asked by various members, all of whom seemed thoroughly interested.

The provincial executive was strengthened by the addition of the following gentlemen: Messrs. E. Roy, W. H. Griffiths, of Sherbrooke, and R. W. Williams, of Three Rivers.

On motion of Mr. H. J. Jackson, seconded by Mr. A. J. Laurance, a vote of thanks was unanimously tendered to Messrs. Gibbard and Pepper for the interest taken and the work done in the formation of the society.

After responses by those gentlemen the meeting broke up, all feeling that a profitable two hours had been spent.

Sundries.

Theodore Ricksecker, manufacturing perfumer, New York City, has made an assignment.

The Pharmacists' Cigar Company, of Detroit, Mich., has been incorporated, with a capital stock of \$25,000. The incorporators are all retail druggists, and the intention is to run it "in the interests of the druggists."

Waubaushene, Ont., wants a resident physician.

IT IS COMING TO THIS.—New York City has a drug store which is strictly a Prescription Pharmacy. No patent medicines or proprietary articles are carried in stock. Patronage of all the leading physicians is accorded this establishment, and ten clerks are kept busy compounding prescriptions. It is said the proprietor of this store clears up a net profit of \$25,000 annually.—*Ex.*

The Radam Microbe Killer Company failed in its suite in the Assize Court at Toronto against William Radam, of New York, whom they sued for \$5,000 for alleged libel and wrongful tampering with mail. The jury returned a verdict for defendant.

In a recent advertisement of The T. Eaton Co., in one of the daily papers, the

following articles appeared amongst the list of drugs, etc., at reduced prices: Camphoreted Chalk, Borac Acid, Oil of Aniseed, Bland's Pills and yet some people will purchase from these "thoroughly experienced druggists," as those in charge are called!

SELLING WITHOUT A LICENSE.—The *Renfrew Mercury* has the following, which may prove both interesting and of value to our readers who handle optical goods: "Prof. Chamberlain, an optician, who has occasionally visited Renfrew to do business, did not make a lengthy stay last week. Chief McDermott called on him with a summons to appear before Magistrate McDonald to answer to a charge of selling without a transient trader's license. At first the professor was highly indignant. He would sue the mayor, and chief, and town, if he were detained here. After consulting a legal gentleman, however, he cooled. He visited the chief again, and said that he had done little business this trip, and if not prosecuted would pay all costs and would give a written guarantee that he would not attempt to do business again in Renfrew without taking out a trader's license. After consultation with the magistrate, the chief agreed to this settlement. The professor paid \$2.30 costs."

Advertising Axioms.

By J. WALTER THOMPSON, OF NEW YORK.

"Virtue increases under a weight or burden," and results increase with a comprehensive expenditure of money in good advertising mediums.

"Better late than never." The golden opportunity is still open to him who would enrich himself by judiciously advertising. None other will pay.

"Mind moves matter." Therefore exercise your mind to advertise so as to stir the gray matter of the brains of the people and affect their pocketbooks.

Good goods will sell to good people constantly. Poor goods only once. Don't let people say, "After having praised their wine they sell us vinegar."

"There is no lock but a golden key will open it," except that of the people's pocketbook. First-class ads will do this with golden results. When people think they want a thing they *do* want it, *and they get it.*

To be prominent anywhere one must have marked characteristics. So it is with an advertisement in the crowded columns of newspapers and magazines: in order to produce the best result, it must be clear, definite, conspicuous, and fresh. *Is yours of this character?*

Liqueur D'Anthracite is prepared (*Nederl. Tydschr.*) by macerating at 35°C. together, shaking occasionally, 100 grams of coal tar, 200 grams of benzol, and 200 grams of 90 per cent. alcohol.

Correspondence.

The Editor does not hold himself responsible for the opinions of correspondents.
Correspondents must in all cases send name and address, not necessarily for publication.

Who Can Furnish This?

Editor CANADIAN DRUGGIST:

SIR,—Kindly tell me, through your valued journal, the formula of "Atwood's Jaundice Bitters," and by so doing you will greatly oblige,

Yours truly,
DRUGGIST.

Moncton, N.B., March 17th, 1896.

Appreciated.

Editor CANADIAN DRUGGIST:

DEAR SIR,—After having taken the course in optics at the Optical Institute of Canada, I wish to thank you for the opportunity given me to take advantage of it as you did. It came to me in a slack time, and I am sure if the druggists of Ontario knew what a mass of information on this subject could be accumulated in such a short time, and how intelligently it would enable them to handle a profitable "side line," not one of them but would take the course, and "not go it blind" on spectacle fitting hereafter.

Yours respectfully,
J. H. FLEMING.

A Timely Suggestion.

Editor CANADIAN DRUGGIST:

DEAR SIR,—During a conversation with Mr. Gibbard, president of the O.S.R.D., I was impressed with the fact that a far greater advance in the co-operation of the manufacturers of proprietary articles has been made than the trade was generally aware of.

The executive, I understand, will, within a few days, issue a new friendly list containing many additions, some of which are of very great importance.

I was also pleased to learn that the number of druggists in the association has been increased to six hundred and sixty-eight, and I am satisfied that if the retailers will adhere loyally to the agreement they have signed and assist the wholesale druggists and manufacturers who are working with them for the general good of the profession the day of triumph is not far distant.

Some important manufacturers have not yet seen their way to join us. This, I think, may be accounted for by the fact that many similar movements undertaken in the United States have signally failed, and I believe that the moment these outsiders are shown that we are all thoroughly in earnest they will join and assist us as far as in their power to gain our end.

My object in writing this letter is to make a suggestion to our retail friends which, if acted upon, I believe will have prompt and beneficial results.

It is this: When the next friendly list reaches them, if each druggist will note the leading manufacturers *not mentioned*,

and at once begin a correspondence with them, not using any threats, but suggesting that they miss their names from the friendly list, and that they think it would be to their interests to join us, the flow of letters of that tenor received by each manufacturer will show most effectually how much in earnest the retailers of this country are, and will, I believe, compel the outside manufacturers to capitulate, even if they only do it in self-defence.

FRIENDLY.

April 1st, 1896.

Cod Liver Oil and its Emulsification.*

By P. C. ARRLASTER.

The codfish, said the author, appeared at Bergen, Norway, and farther north in the months of January and February, and was then caught in quantities of six to eight millions or more. Later, about March, the fish appeared at Lofoten, where sometimes over eight million were caught. Yet later, the fish went farther north to Finnmark, where the catch was quite as large. About sixteen thousand fishermen congregated annually at Lofoten. The fecundity of the codfish was such that it had been estimated that if only one female fish escaped annually, and her eggs safely hatched, the species would be effectually preserved. This fact was less surprising when it was recollected that the ovary of each female fish contains no less than nine million eggs. As soon as possible after capture the fish were brought alive in a specially constructed tank to the shore, where they were sold to the tradesmen and manufacturers, or, what happened very seldom, the oil was extracted by the fishermen themselves on board. There were five varieties of cod-liver oil, namely: (1) That extracted by means of steam, or steam oil; (2) the ordinary medicinal oil, of a light yellow color; (3) the oil of a dark yellow color; (4) the brown medicinal oil; (5) the dark brown oil used by tanners and curriers to soften and preserve leather and skins.

1. In the preparation of steam oil the livers were subjected to the action of steam in pans, pressed and transferred to closed lead cisterns, where the oil was left to deposit stearin and other impurities. After one or two months the clarified oil was bottled. Merchants drew off the oil at as low a temperature as possible, to avoid stearin being afterwards deposited. This oil was almost water-white, and has very little taste or smell. 2. The light yellow oil was prepared by allowing the livers to remain in heaps, when the oil runs out by itself. It was evident that through this exposure to the air, lasting some weeks, the oil got somewhat rancid, and, of course, stronger to the taste and smell than the steam oil. Here, as elsewhere, the difference in the light yellow oils was due to the cleanliness observed and the casks used. Being prepared

without heat, this oil contained very little stearin, and would stand a cold temperature better than the steam oil. Makers of high-class oils always kept the oil for some time in ice-houses to allow the stearin and palmitine to deposit. 3 and 4. These were the darker yellow and brown medicinal oils, and were prepared by pressing the livers and subjecting them to a low heat. 5. Currier's oil was obtained by letting the livers ferment, heating and then subjecting to strong pressure.

With regard to the emulsification of cod-liver oil, the author pointed out the many virtues of Irish moss, which contains about 70 per cent. of pectin or vegetable jelly, and had extraordinary powers of emulsification. The only disadvantage in its use was the liability of its solution to ferment under certain conditions; this might be got over by the addition of five per cent. of alcohol to the bulk, or a small quantity of elixir saccharini, which acted as a powerful anti-ferment as well as a sweetening agent. The formula he had found most satisfactory was:

Irish moss (picked) 1 drm.
Cold distilled water 5 ozs.

Allow the water to stand on the moss for one hour; then boil for 10 minutes, and strain through muslin, and make up to five ounces. To this, in a bottle, when nearly cold, add:

Cod-liver oil 8 ozs.
Alcohol 1 oz.
Water, to make 16 ozs.
Flavoring q.s.

Use a quart bottle, shake the mucilage well round the sides, and then add the whole of the oil, and agitate to form a nucleus; then add half the water, and lastly the alcohol, flavoring, and as much water as required to make up the quantity.

He could not see why such a preparation as an emulsion made by shaking together equal parts of the oil and lime water, and properly flavored, should not come into general use. The two drugs were separately prescribed largely for rickets and spinal diseases in children; also the presence of lime water would certainly help a delicate stomach to bear the oil. To completely mask the odor and taste of cod-liver oil would be worth much gold to any man. He had found oil of wintergreen very useful, though it was not much used in this country. Each of the following three formulæ was sufficient for one pint of the finished product:

1
Oil of wintergreen 15 minims.
Oil of sassafras 15 "
2
Oil of wintergreen 20 minims.
Oil of bitter almonds 20 "
3
Oil of neroli 12 minims.
Oil of bitter almonds 12 "
Oil of cloves 2 "

Oil of lemon appeared to be of little use. Elixir of saccharin, he found, is very useful in bringing out the taste of the flavorings used.—*British and Colonial Druggist.*

*From a paper read before the Midland Chemists' Assistants' Association.

Write us for quotations on

Blue Vitriol

Sulphur

PARIS GREEN

Hellebore

Insect Powder

Cod Liver Oil

ARCHDALE WILSON & CO.,

WHOLESALE DRUGGISTS,

HAMILTON, ONT.

A Demand . . .

For the undermentioned lines will surely follow the season.

Citrate of Magnesia

"E. & Co."

We confidently recommend our brand to you.

5 lb. Cans.

3 lb. Bottles.

1 lb. Bottles.

White Castile Soap

"SHELL" BRAND

Fresh stock arriving, to be followed by another shipment in a month's time.

Bryant's Root Beer

1896

SPECIAL OFFER.—With an order for one gross we will send free a **Metallic Drum Sign** attachable to the corner post of your store window. An inducement to the consumer is the offer of dolls. "Stickers" to advertise this offer accompany each box; also a supply of cards.

\$1.50 Per Box (2 doz.). 5% discount in gross lots (with sign).

EXCELSIOR EGG PRESERVER.

ELLIOT & CO.,

5 Front Street East, - - Toronto.

We Manufacture

Envelopes
Writing Tablets
School Blanks
Memo. Books, etc., etc.

And are Headquarters for

ALL
 KINDS of **STATIONERS' SUPPLIES**

DO YOU WANT THESE GOODS?

Then write us for prices.

THE W. J. GAGE CO., LTD.,

52-54 Front St. West. - - TORONTO.

DO YOU CARRY ODOROMA IN STOCK?

If Not, Why Not?

ODOROMA

ODOROMA

The Perfect Tooth Powder

Has captured the market wherever it has been introduced. If it is a new thing to you, here are a few reasons why you should handle it:

It is cleansing, antiseptic, fragrant, refreshing.

It is perfectly harmless.

It has been analyzed by the most expert chemists, who all report in the most favorable terms.

It sells at a glance in the first instance, and on its reputation thereafter.

It yields more profit to the retailer, and to the consumer a greater quantity of the best quality, than any other tooth powder in the world.

Order from your wholesale house

AROMA CHEMICAL CO., - TORONTO

The J. STEVENS & SON CO'Y, Ltd.,

145 Wellington St. West, TORONTO.

(Near Union Station.)

Druggists' Specialties,
 Surgical Dressings,
 Elastic Stockings,
 Clinical Thermometers,
 Glass Importers,
 Trusses and Suspensories
 Medical Batteries,
 Lints and Cottons,
 Abdominal Belts,
 Instruments of all kinds.

Send for quarterly quotations.

PRICE LIST**Common Sense Exterminator**

FOR ROACHES:

25c. each, \$1.75 doz.; 50c. each, \$3.75 doz.; \$1.00 each, \$8.00 doz.

Common Sense Exterminator

FOR RATS AND MICE:

15c. each, \$1.00 doz.; 25c. each, \$1.75 doz.; 50c. each, \$3.50 doz.; \$1.00 each, \$8.00 doz.

Only infallible remedy known. No smell from Dead Vermin. **Not Poisonous** to man or beast. Once used always recommended. Sold by Wholesalers at MONTREAL, TORONTO, and LONDON.

Common Sense Mfg. Co.,

523 King Street West, Toronto.

Manufacturers of Common Sense Stove Polish, and Common Sensoline Bicycle Lubricator.

Teaberry THE STANDARD

Tooth Powder.

RECOMMENDED BY DENTISTS.

Write for prices.

ZOPESA CHEMICAL CO.,
 TORONTO.

"SANITAS"

**NATURE'S
 GREAT DISINFECTANT.**

**Non-Poisonous.
 Does not Stain Linen.**

FLUID, OIL, POWDER, &c.

HOW TO DISINFECT A valuable Copy right Book giving simple directions "How to Disinfect" in cases of the various Infectious Diseases, as also in every-day life, will be sent Free on application.
 HOW TO DISINFECT THE SANITAS CO., LIMITED, DETNOL GREEN, LONDON, ENGLAND

A pushing Agent wanted in each Canadian City.

"THE BEST"

NURSER...



EASY SUCTION

EASILY CLEANSED

NIPPLE CANNOT COLLAPSE

PREVENTS WIND-COLIC AND
 BOWEL TROUBLES.

EXTRA VALVES (Air Inlets) and "CLING-FAST" Nipples may be had of all wholesale druggists @ 35c. per dozen.

"The Best" Nurser \$2.10 per dozen (complete).

St. Louis, Mo.
 "The Best" Nurser is a godsend to babies.
 L. A. TURNBULL, M.D.

The London Drug Co.,
 LONDON, ONT.

Auld Mucilage Co.

MANUFACTURERS OF

All goods
 Guaranteed



**Premium Mucilage
 Lithograms and
 Composition**

WRITE FOR QUOTATIONS—

MONTREAL, P.Q.,
 759 Craig St.

WM. ANGUS, Man.
 Formerly of
 Royal Pulp and Paper Co.



Sold from Halifax to Victoria

BY

HALIFAX { Brown & Webb. Simson Bros. & Co.
 Forsyth, Sutcliffe & Co.
 ST. JOHN—T. B. Barker & Sons. D. McDiarmid & Co.
 YARMOUTH—C. C. Richards & Co.
 QUEBEC—Kerry, Watson & Co. Lyman Sons & Co.
 MONTREAL { Evans Sons & Co. Lyman, Knox & Co.
 KINGSTON—Henry Skinner & Co.
 TORONTO { Lyman Bros. & Co. Evans Sons & Co.
 Northrop & Lyman. T. Milburn & Co.
 Elliot & Co.
 HAMILTON—Archdale Wilson & Co. J. Winer & Co.
 LONDON—London Drug Co. Jas. A. Kennedy & Co.
 WINNIPEG—Martin, Bole & Wynne Co.
 NEW WESTMINSTER—D. S. Curtis & Co.
 VICTORIA—Langley & Co.
 QUEBEC.—W. Brunet & Cie.

A Perfect Toilet Gem.



The drug trade of Canada will find this one of the most satisfactory articles on the market. The package is convenient and attractive.

Kindly make sure the ARECA NUT TOOTH PASTE offered you is made in WINNIPEG. The genuine is for sale by

Lyman Bros. & Co., Toronto.
 Elliot & Co., Toronto.
 Evans & Sons, Montreal.
 Lyman, Knox & Co., Montreal.
 Lyman, Sons & Co., Montreal.
 Kerry, Watson & Co., Montreal.
 J. Winer & Co., Hamilton.
 J. A. Kennedy & Co., London, and by

THE
MARTIN, BOLE & WYNNE CO.
 WINNIPEG.

Trade Notes.

Dr. Casgrain has retired from the drug firm of J. S. Labelle & Co., Windsor, Ont.

The drug store of C. Fairweather, Sussex, N.B., was destroyed by fire, March 12th.

G. E. Frost, of Hampton, N.B., is about opening a new drug store in St. John, N.B.

A. Lemieux, formerly with Gauvreau Frères, is starting a new drug store in Quebec city.

A. B. Stevenson, a former Ontario druggist, has purchased a drug business in Monrovia, California.

H. W. Smith has purchased the drug business of Mrs. Book, Niagara Falls South, and will conduct it as a branch store.

W. H. Pollard, formerly of J. D. Tully's drug store, Lindsay, Ont., is now engaged as manager of Dr. Shier's east end drug store in that place.

H. P. Baird, druggist, Woodstock, N.B., has formed a joint stock company with a capital of \$80,000, to be known as the Baird Co., Limited.

A partnership has been formed between H. F. McLean and G. R. Morrow to carry on drug business at Rossland, B.C., with a branch store at Trail, B.C.

C. A. Wisner, London, Ont., has sold his drug stock to Dr. Spence, who is removing it to Fordwich, Ont. Mr. Wisner will confine himself to the jewelry trade.

W. A. Griffith & Co., Vancouver, B.C., are about removing their drug business to the store at present occupied by Methorell & Co., the latter firm intending to give up business.

We are pleased to learn that Professor Heebner, Dean of the Ontario College of Pharmacy, is recovering from his indisposition, and will be able to resume his duties at the next session of the college.

A. W. Le Patourel, formerly traveller for Archdale Wilson Co., has been appointed agent for Johnson & Johnson's plasters and Andrew Jergen & Co.'s toilet soaps for British Columbia and the Northwest Territories.

John Taylor & Co., proprietors Morse Soap Works, Toronto, have just added to their plant a chemical laboratory for analyzing soaps and the raw materials they use. This firm are now making glycerine from waste soap lyes, as a bi-product.

Charles Marin, druggist of St. Cundy, Que., has been charged by the Pharmaceutical Association of that province with doing business without having passed the necessary examinations, and for selling poisons without making the proper registration.

An inexpensive and effective advertisement can be had by using Japanese paper napkins, suitably printed, as wrappers for fine goods, such as perfumes, etc. Buntin, Gillies & Co. have a large range of these goods, and offer to send samples to anyone who applies for them.

The latest addition to the line of tablets manufactured by Buntin, Gillies & Co., Hamilton, is their "Golden Fleece," which comes in three sizes, ruled or plain. The tablet contains ninety-six leaves of medium weight linen paper. The cover is royal purple, with title printed in gold. It has a striking appearance, and is a notable addition to the already fine line of tablets shown by this house.

The financial embarrassment of Mr. G. S. Gibbard mentioned in our last month's issue was not due to any failure in the drug business, but the result of a neglect on the part of other interested persons to protect a covenant given some time ago on a deal in real estate. Mr. Gibbard's businesses both on King and College streets are in a prosperous condition, and, notwithstanding the surplus of drug stores, are holding their own and making money for the proprietor.

Buntin, Gillies & Co., Hamilton, are advertising fountain pens in large variety. All the best makers' goods are represented in their stock, and dealers will find that prices are right. Fountain pens are a line which druggists and stationers can handle with good profits. The Britannia pen is one of the leading lines sold by Buntin, Gillies & Co. This pen retails at \$2, the wholesale price being \$1.25, or in lots of one dozen, \$12.

Montreal Notes.

In response to numerous complaints from all parts of the province with regard to unlicensed persons keeping drug stores, the registrar and secretary, acting under instructions from the Council of the Pharmaceutical Association, has taken action against several parties in Montreal and the eastern townships. In all cases where the defendants confessed judgment the association has asked for leniency from the bench.

Mr. Morrison is busy organizing his committees for the reception of the American Pharmaceutical Association this summer. There is one committee which must get to work at as early a date as possible, and that is the Finance Committee.

Nova Scotia Notes.

Mr. A. A. Woodill, of Halifax, has opened a drug store in Water street, a few doors north of his old stand.

Mr. J. D. Clarke, formerly with Messrs Crowe Bros., of Truro, has taken charge of the business of Mr. L. R. MacLaren, of Digby.

Mr. L. R. Morse, junior, so well known in his father's drug store in Laurentown, has graduated at McGill College.

Mr. E. Jenneris' many friends will be pleased to see him at his old post in Sherbrooke.

Mr. Courtney Henry, formerly of Antigonish, who has been in the south for the last year, is returning in good health.

The regular meeting of the executive of the Nova Scotia Pharmaceutical Society was held in the Board of Trade rooms on Monday, the 30th ult. After the regular business of the meeting was concluded, the president announced that Mr. Gibbard, president of the Ontario Society of Retail Druggists, hoped to be here at the annual meeting. The objects of the society were discussed, and the Nova Scotia society can be expected to enter into hearty co-operation with their friends in the west.

Manitoba Notes.

The newly-elected council for the Pharmaceutical Association of Manitoba held its first meeting Wednesday, the 11th day of March last. There were present Messrs. C. Flexon, J. F. Howard, E. D. Martin, J. C. Gordon, W. Penford, and A. E. Kelly.

The election of officers resulted as follows: President, C. Flexon; vice-president, J. C. Gordon; treasurer, E. D. Martin. The following gentlemen are appointed on the Board of Examiners: B. M. Canniff, Portage la Prairie; A. R. Leonard, Stonewall; W. R. Bartlett, Brandon; L. W. Leithhead, A. Campbell, and W. Penford, Winnipeg.

The spring examinations commenced on the first day of April, continuing for three days. Twenty-three students appeared before the examiners at the sitting, five for the major and eighteen for the minor examinations.

Dr. J. T. Wilson, of Slave Lake, was in Winnipeg last week attending the medical examinations. He is proprietor of the Slave Lake drug store.

Mr. B. M. Canniff, of Portage la Prairie, was in Winnipeg last week.

It is reported that Messrs. A. E. Kelly and C. Dixon have purchased the drug business of Mr. E. L. Knowlton, Winnipeg.

Mr. D. M. Calder, formerly of Medicine Hat, has taken a position in Mr. Joseph Taylor's drug store at Portage la Prairie.

Mr. W. Spiers has gone to Holland, Mon., to take charge of a drug store at that point.

Mr. C. C. Godfrey, who has been clerking for Dr. Cartmell at Glenboro for some time, has taken up his residence in Carberry, where he will manage Mr. A. E. Munson's drug store.

British Columbia Notes.

British Columbia will answer to the call, and already a strong association is formed in Vancouver on the lines of the Ontario Retail Druggists. Victoria druggists, to a man, have expressed their willingness by signing an agreement the counterpart of the O.R.D. Association, and before this is in print a provincial association will be well under way.

The action of J. N. Woodward in deliberately reducing prices has been severely criticized throughout the province.

Victoria druggists are glad to see Mr. Mallory back again at Mr. C. E. Jones'. We understand he has sold out his interest in the drug firm in Vancouver.

Newfoundland.

There is no pharmacy law in force in Newfoundland, but there is a pharmaceutical society, or rather, perhaps, it might be termed a druggists' association, which meets generally twice a year to discuss matters pertaining to pharmacy in its business aspect. In St. John's, the capital, there are six drug stores, all well equipped and in the hands of thoroughly competent pharmacists. The oldest druggist in the city is Mr. John McNeil, the proprietor of the store which is known as D. McMurdo & Co. Mr. McNeil served his apprenticeship with Hamilton & Hardie, of Dundee, Scotland, and came to Newfoundland thirty-five years ago, when he commenced as assistant to the firm above mentioned, and afterwards succeeded to the sole ownership of the business. All the other druggists in the city, with but one exception, have been at some time apprentices with Mr. McNeil.

The physicians of St. John's, as a rule, write prescriptions; only one preparing his own medicine. The destructive fire of 1892, which worked such dreadful havoc and was the cause of very heavy losses to many of the business men of St. John's, burned three of its drug stores. All, however, are again in business.

Formerly the supplies of drugs, etc., were procured almost entirely from England; but, of late years, the Canadian drug houses have secured a good share of the trade, through regular trips of their travellers. Business generally shows a marked improvement in Newfoundland, and a feeling of security has taken the place of the "monetary panic" which existed some time ago.

Pharmaceutical Examinations.

The Board of Examiners for the preliminary examination of students entering the study of pharmacy held their quarterly examinations upon Thursday, April 2nd, in the College of Pharmacy, Montreal, and Laval University, Quebec, when twenty-three candidates presented themselves in Montreal, and three in Quebec,

the following candidates named in order of merit passing, and being entitled to be registered as certified apprentices, namely: Edmore Bernard, J. A. Deardon, J. B. Bisaillon, L. J. Meyer, Geo. E. Clerk, F. W. Laidley, and E. Gothier. Mr. J. Frothingham, one of the candidates, passed upon all subjects but Latin, which subject he will require to present himself for at the July examination. The remainder of the candidates were referred back for further study.

The examiners were: Prof. A. Leblond de Brennat and Prof. Isaac Gammell.

The next examination will be held on July 2nd, candidates being required to send their applications to Mr. E. Minor, secretary, at least ten days prior to the date fixed for the examination.

Do You Want Trade in Mexico and South American Countries?

The Commercial Intelligence Department of the Associated Trade and Industrial Press, 610 13th street, Washington, D.C., has compiled from first sources a list of the leading dealers in drugs and chemicals in Mexico, Central and South American countries, which will be sent on neatly typewritten sheets to any address on receipt of \$1. This is an opportunity at trifling cost to pave the way toward new commercial connections with Spanish America.

How to Join the American Pharmaceutical Association.

President J. M. Good has announced the following members of the "Special Auxiliary Committee on Membership." Each member has charge of the work of obtaining applications in his own State. If you desire to join the association, apply to your State representative on the committee.

- Alabama—E. P. Galt, Selma.
- Arizona—Clements L. Eschman, Phoenix.
- Arkansas—W. W. Kerr, Russellville.
- California—W. M. Scarby, San Francisco, 400 Sutter street.
- Canada, Province Ontario—John Lowden, Toronto.
- Canada, Province Quebec—G. LaChance, Montreal.
- Colorado—Chas. S. Cline, Denver, Nineteenth and Welton streets.
- Connecticut—Chas. A. Rapelye, Hartford.
- Delaware—John M. Harvey, Wilmington.
- District of Columbia—Saml. L. Hilton, Washington.
- Florida—Wm. A. Dell, Jacksonville.
- Georgia—Henry R. Slack, La Grange.
- Idaho—A. O. Ingalls, Murray, Shoshone Company.
- Illinois—H. H. Rogers, Kankakee.
- Indiana—F. H. Carter, Indianapolis.
- Indian Territory—Chas. G. Moore, Eufaula.
- Iowa—W. H. Torbert, Dubuque.

Kansas—Mrs. M. O. Miner, Hiawatha.

Kentucky—Addison Dimmitt, Louisville.

Louisiana—L. F. Chalin, New Orleans.

Maine—Edw. A. Hay, Portland.

Maryland—D. M. R. Culbreth, Baltimore.

Massachusetts—F. M. Harris, Worcester.

Michigan—A. S. Parker, Detroit.

Minnesota—Fred. J. Wulling, Minneapolis.

Mississippi—J. C. Means, Natchez.

Missouri—Ambrose Mueller, St. Louis.

Nebraska—A. V. Pease, Fairbury.

Nevada—W. A. Perkins, Virginia City.

New Hampshire—A. C. Preston, Portsmouth.

New Jersey—Geo. W. Parisen, Perth Amboy.

New Mexico—Jas. O. Kinnear, Deming.

New York—C. A. Mayo, New York.

North Carolina—E. V. Zoeller, Tarboro.

North Dakota—H. L. Haussamen, Grafton.

Nova Scotia, New Brunswick, and Prince Edward Island—F. C. Simson, Halifax.

Ohio—Louis C. Hopp, Cleveland, 198 Euclid avenue.

Oklahoma Territory—John E. Sombart, El Reno.

Oregon—Geo. C. Blakely, The Dalles.

Pennsylvania—Wm. McIntyre, 2429 Frankfort avenue, Philadelphia.

Rhode Island—Wm. O. Blanding, Providence.

South Carolina—Oscar E. Thomas, Columbia.

South Dakota—I. H. Keith, Lake Preston.

Tennessee—J. O. Burge, Nashville, Broad and Market streets.

Texas—Thomas R. Keene, Dallas.

Utah—Frank A. Druehl, Salt Lake City, Maine and Third South streets.

Vermont—H. A. Chapin, Brattleboro.

Virginia—John F. Christian, Roanoke.

Washington—Henry E. Holmes, Seattle.

West Virginia—E. L. Boggs, Charleston.

Wisconsin—John R. Drake, Milwaukee.

Wyoming—Dr. Thomas G. Magee, Rawlins.

The Council Committee consists of Dr. H. M. Whelpley (chairman), St. Louis, Missouri; Chas. M. Ford, Denver, Colorado; Geo. W. Voss, Cleveland, Ohio; S. P. Walton, Atlanta, Georgia; Jacob Burghelm, Houston, Texas; and Geo. Kennedy (secretary), Pottsville, Pennsylvania.

The diatoms, single-celled plants of the sea-weed family, are so small that 3,000 of them laid end to end scarcely suffice to cover an inch of space on the rule.



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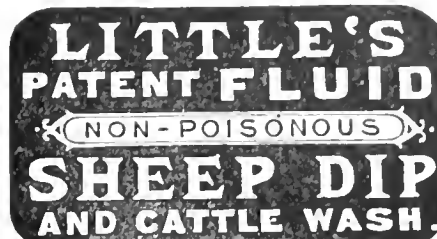
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Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin,
making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

477 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at \$1.00. Is wanted by every Farmer and Breeder in the Dominion.

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To be had from all wholesale druggists in Toronto, Hamilton, and London.



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A Highly Concentrated Fluid for Checking and Preventing
Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and \$1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

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No.	Rm.	No.	Rm.
22 For Magnesia and general use,		31 Large Seidlitz, Blue, 6 x 6,	\$0.50
White, 6 x 8	\$0.65	40 Powder Papers, White, 2 1/4 x 4,	25
28 Regular Seidlitz, White, 4 1/2 x 5 1/4,	40	41 Powder " " 3 x 4 1/2	20
29 Regular " Blue, 4 1/2 x 5 1/4,	40	42 Powder " " 2 1/4 x 3 1/4	25
30 Large " White, 6 x 6,	50	43 Powder " " 3 1/4 x 4 1/2,	25

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Major's Rubber Cement, 2-oz. bottle, or in collapsible tubes, for repairing rubber boots and shoes, bicycle tires, rubber garments, silk umbrellas, etc. 15c.

Major's Leather Cement repairs boots and shoes, garments and umbrellas of all kinds of material except rubber, applied same as on leather goods. 15c.

Major's Liquid Glue repairs furniture, books. 10c.

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Ozone Specific is a valuable non-toxic, non-irritating antiseptic for either internal or external use. Our **Ozone**, concentrated form, is the most powerful blood purifier and germicide ever produced, and will be found a specific in all forms of Asthma, Bronchitis, Whooping Cough, Croup, Measles, or Diphtheria. For Catarrhal Troubles it will prove invaluable as a tonic and constitutional remedy, and is especially efficient in preventing or combating fermentation of food in the stomach, breaking up the worst forms of Dyspepsia and Sour Stomach.

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Physicians owe it to themselves to try it.

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American Pharmaceutical Association.

Below we give the lists of queries submitted by the sections on Scientific Papers and Education and Legislation of the American Pharmaceutical Association for reply at the meeting to be held in Montreal in August:

SECTION ON SCIENTIFIC PAPERS.

Samuel P. Sadth, Ph.D., Chairman, Philadelphia, Pa.

QUERIES.

(1) *Sanguinaria*. The liquid preparations slowly deposit a precipitate upon the sides of the containers. Can a menstruum be devised which will hold permanently in solution the soluble constituents?

(2) Gelatine Capsules. What general rule should be adopted in compounding prescriptions ordering gelatin capsules? When should the ingredients be dispensed in dry powder, and when is it preferable to form them into a mass?

(3) *Ichthyol*. *Ichthyol* is now being used internally, dissolved in water and other media. A palatable form of administration is wanted.

(4) *Salol* and *Acetanilid* are given usually in powder form. Cannot formulas for therapeutically unobjectionable liquid preparations of the same be devised?

(5) *Salicylic Acid*. It has been alleged that the synthetical salicylic acid now in the market occasionally shows the presence of *salol*. Is this statement correct, and, if so, to what extent?

(6) *Formalin*. A 40 per cent. solution of formaldehyde under that name is attracting much attention as an antiseptic and deodorizer. A good practical formula for its preparation by the retail pharmacists is wanted.

(7) *Kamala*. It is supposed that resin is the active constituent. Investigation recommended. Is a tincture advisable?

(8) *Pyrethrum Carneum*.
 " *Roseum*.
 " *Cinerariaefolium*. } Insect powder. Can it not be used as a medicine? On what depend their insecticide properties?

(9) *Veronica Officinalis* is used largely as a house remedy for pectoral complaints and skin diseases. Is there any alkaloid or other active principle in the plant to warrant such use?

(10) *Viscum Album* (Mistletoe) is used by practitioners to arrest post-partum and other uterine hæmorrhages. Investigation invited.

(11) *Pichurim Beans*. What are they? Various descriptions of their oils are given by different investigators.

(12) *Strophanthus Seeds*. A determination of the active principles in the seeds of commerce, their nature, quantity, and method of valuation.

(13) *Pareira*. *Pareira* is a valuable diuretic and tonic drug. Buxine has been found in it, but this can hardly be the important principle. What is it?

(14) *Rhus*. What is the really potent principle of the *Rhus* group? Is it a

volatile acid, as claimed by Mäusch, or is it a substance resembling Cardol?

(15) *Tannin*. At what season of the year should the tannin drugs be gathered? What relation does the amount of tannin present bear to that of starch? Does the tannin increase as the starch decreases? Or, is this true of some drugs, but not of others?

(16) *Cypripedium*. There appears to be a poisonous principle, producing effects similar to those of *Rhus Toxicodendron*, in the glandular hairs of some *Cypripediums*, particularly *C. Spectabile*. What is this principle?

(17) *Iris*. The rhizomes of many species of *Iris* abound in starch, as the species that furnish the orris root of commerce, but the rhizomes of *Iris Versicolor* and of the *Iris pseudo-acorus* do not turn blue with iodine solution. What is the carbohydrate present?

(18) *Veratrum*. By what means may the rhizomes of *Veratrum Album* best be distinguished from those of *Veratrum Viride*? Some method is desirable by means of which this may be done easily and with certainty.

(19) *Aconites*. The different aconites are very liable to be confounded. In the case of drugs so potent, it is exceedingly important that the structure of each species liable to be gathered or sold for the official should be carefully described. Someone should undertake the task of the thorough investigation of the microscopical structure of all the species.

(20) *Pepsin Test*. A discussion of the variable results obtained in the tests.

(21) *Cottonseed Oil*. A review of the tests for its presence as an adulterant in other fixed oils.

Decolorized Tincture of Iodine.*

My practical experience, coupled with what research I could make, convinces me that none of the methods given for this preparation is of much worth. Therefore I will only mention the method I use, with a few comments on the so-called decolorized tincture of iodine. The preparation I use is similar in composition to that of the German pharmacopœia and National Formulary. It is as follows:

Iodine	g. 20
Sodium hyposulphite.....	" 20
Water, distilled	" 20

Dissolve by very gentle heat, cool, and add gradually 15 grams of stronger ammonia, and then 150 grams of deodorized alcohol. After eight days filter in a covered funnel, and preserve for use. The careful addition of the ammonia is necessary to insure success of the preparation.

This preparation contains sodium iodide, ammonium iodate, and sodium tetrathionate. The greater part of the latter salt crystallizes out after mixing the different ingredients, and is separated by filtration. Sodium tetrathionate is an

* R. C. Dickinson at a meeting of the Georgia Pharmaceutical Association.

unstable salt, and therefore it is separated to the greatest possible extent by the addition of alcohol, in which it is not soluble. This preparation differs from that of the German pharmacopœia in being more ammoniacal and more alcoholic, and from that of the National Formulary in being in every way a more concentrated preparation. It appears that if the ammonia is added all at once, the reaction between the chemicals will not be a smooth one. I find that on standing this preparation does not acquire that decayed radish like odor characteristic of some preparations.

The Princess Beglarion, Medicinæ Doctor, Universitatis Bernæ.

Such is the title of one of the most celebrated princesses of Armenia. The royal lady was not content with her social duties, and some four years ago she went to the University of Berne, where she studied medicine industriously, and in due course graduated as M.D. Since her graduation she has served in the cholera hospitals of Russia, and did such good work as to merit the personal thanks of the Czar. At present she is practising at her father's palace, to which the sick flock from miles around to consult her. She is so fond of her profession that she is devoting a large proportion of her fortune to erecting a hospital on her father's estate. The princess is only twenty-five years old, small, piquante, extremely pretty, and undoubtedly far and away the most interesting "new woman" in Europe.—*British and Colonial Druggist*.

Resinate of Copper.

By dissolving copper sulphate, 50 parts, in water, 1,000 parts, heating the solution to 100 C., and then adding ordinary resin, 100 parts *résinate de cuivre*, a new veterinary remedy is formed (*Ann. de Mév. Vet.*). The resulting product is greenish, and described as insoluble in essential oils or alcohol. To prepare it for use dissolve green or black soap (? soft soap), 100 parts, in any amylic alcohol, 100 parts, and to the warm solution add the resinate, 60 parts.

The Sponge Market Stiffening.

The shortage in the Cuban supply is having its effect on the price of sponges, which is advancing steadily, and the pronounced tendency to higher prices extends to all the grades, including Nassau, Florida, and Mediterranean. Druggists should increase their retail prices, if they have not already done so.

Antidiabeticum is a synonym for glycosolvol, which is referred to below, and which should not be confounded with anti-diabetin, which has already been described in this journal.

The Drop in Cocaine.

Somewhat to the astonishment of wholesale druggists, the cocaine manufacturers on March 9th gave notice of a fresh reduction in the price of the anæsthetic, the decline in price on this occasion being a little over 8 per cent.—viz., from 14s. to 12s. 10d. per oz. for hydrochlorate in 100-oz. lots. The increased importation of crude cocaine and the reduced prices at which that product is said to be offered are put forward as reasons for the decline, but there are probably other contributory causes. At any rate, although cocaine is now lower in price than it has been since, in 1884, it first became a commercial article, very little confidence is felt in the stability of the alkaloid. Last year was a most unstable one in the cocaine market, the wholesale quotations having changed on an average once a month.

The cause of this disturbance lay chiefly in the appearance in the market of a new manufacturer, who began by cutting the convention rates, and provoked reprisals. After a sharp contest matters settled down in the autumn to a general price of about 14s. 6d., although the previously existing absolute unanimity among the makers had not survived the shock of the struggle. The general view was that prices would remain pretty low during the present year, but as far as supplies were known to exist in second hands a rather uneventful year was expected. All the wholesale firms are pretty well stocked, and, while it is believed that the article cannot bear much further cutting without becoming unprofitable to the manufacturers, the knowledge that any agreement among the makers to raise the price to an exorbitant figure would bring new manufacturers into the field suffices to preserve the peace of mind of middlemen and consumers.—*Chemist and Druggist*.

Action for Damages Against a Wholesale Drug House.

The case of Dr. F. R. England against Messrs. Kerry, Watson & Co., wholesale druggists of Montreal, was tried before Mr. Justice Archibald and a special jury. The circumstances of the case are probably well known to most of our readers. Dr. England, who evidently dispensed his own medicine, telephoned to H. H. Dart & Co. for two ounces of bismuth, and received a package marked "Bismuth Trinit, 2 oz." Mrs. England took a dose of from 30 to 40 grains. Shortly afterwards she complained of a pain in her stomach. Dr. England administered emetics, and gave relief. About ten days afterward Mrs. England died, and it was alleged that death was caused by the administration of the drug, and which Dr. England claimed was tartar emetic, which had been supplied in place of bismuth.

Mr. Dart claimed that the drug had been supplied to him as "bismuth" by Kerry, Watson & Co., hence the action taken against the latter firm. The de-

fence submitted that they had never sold the drug under the circumstances referred to, and therefore could not be held responsible for damages caused by a third party. They also claimed that death resulted from natural causes, and causes other than those alleged by the doctor. An analysis of the supposed "bismuth" which Mr. Dart had furnished was found to be tartar emetic. The evidence of the government medical experts, and Drs. Girdwood and Fafard, favored the theory that death had not resulted from poisoning, but from peritonitis and the other complaints mentioned.

The verdict of the jury was that Mrs. England's death had been accelerated, though not to any appreciable extent, by her having taken a dose of tartar emetic in mistake for bismuth, and that Dr. England himself had suffered no pecuniary loss by her death, and that his son had suffered loss to the extent of \$1,000. Judgment was therefore given against Kerry, Watson & Co. for this amount. The case will be appealed.

Vanilla Extracts.

(1) To 130 grams of vanilla, finely cut, and 1 gram of potassium carbonate, add 100 grams of boiling water, allow to cool, and then add 500 grams of 95 per cent. alcohol, macerate for at least 48 hours and filter. (2) Musk, 0.5 gram; potassium carbonate, 0.5 gram; vanilla beans (cut), 30 grams; boiling water, 120 grams; alcohol, 360 grams. The boiling water is poured over the musk, vanilla, and potassium carbonate, allowed to cool, when the alcohol is added, and the whole allowed to macerate 14 days, when it is filtered.—*Drug. Ztg.*

Fluid Extracts by Dialysis.

Golaz (*Annal. Pharm.*) proposes to obtain the active constituents of vegetables in their natural condition by extracting them by means of dialysis. To this end he bruises the medicinal plants and places the pulp into a dialyzer surrounded by 90 per cent. alcohol. The tincture thus obtained contains from 34 to 45 per cent. of alcohol, the extra water present being derived solely from the green plant. The author thinks these tinctures, or field extracts, exactly represent the medicinal virtues of the drugs. One part of the finished extract is supposed to represent an equal weight of the herb.

HIS DESCRIPTION.—A little boy whose elder sister is much interested in photography, and who gives the family the benefit of many observations about her work, was taken to the court-house to see the end of a certain trial. He came home and told his mother about it. "The judge made a speech to the jury," he said, "and then sent them into a little dark room to develop."—*Boston Transcript*.

Cycling Proverbs.

Politeness is like a pneumatic tire; there is not much in it, but it eases many a jolt in the journey of life.

A pleasant disposition, like oil in a bicycle bearing, reduces friction and prevents a world of wear and tear.

Ambition is like a bicycle saddle; though much sat upon, it generally manages to be on top.

The work of the world, like a bicycle, would soon stop, were it not for the cranks.

Like a link in a bicycle chain, we may not amount to much individually, but collectively we make the wheels go around.

Life is like a bicycle run; some worry, fret, and scorch along, and soon reach the end, while others take it easy and enjoy themselves as they go.—*American Journal of Photography*.

Rothschild's Rules.

The elder Baron Rothschild had these rules posted upon the walls of his bank: Shun liquors.

Dare to go forward.

Never be discouraged.

Never tell business lies.

Be polite to everybody.

Employ your time well.

Be prompt in everything.

Pay your debts promptly.

Bear all troubles patiently.

Do not reckon upon chance.

Make no useless acquaintances.

Be brave in the struggle of life.

Maintain your integrity as a sacred thing.

Never appear something more than you are.

Take time to consider, and then decide positively.

Carefully examine into every detail of your business.

"The Non-Hereditary of Inebriety," by Leslie E. Keeley, M.D., LL.D., is the title of a timely volume now in the press of S. C. Griggs & Co. The author endeavors to show that inebriety is a disease, and that it, as well as other diseases, is not hereditary. The work is said to differ from others on inebriety in its application of the doctrines of the variation of species and natural selection to cell life, thus showing the causes and nature of disease, its modern scientific treatment, and the philosophy of immunity to disease in general, and inebriety in particular—all in language within the comprehension of the general reader. The international reputation of the author as an original investigator in matters pertaining to inebriety should make this work of more than ordinary value to scientists, the medical profession, and to all who are, by legislation or otherwise, endeavoring to correct the evils of intemperance.

About Cough Drops!

Should Druggists handle those lines every Confectioner and Grocer sells?

Should Druggists drive the trade to the Confectioners by limiting their line to the nauseous and old brands that the public are tired of?

Why not carry and push the sale of

Honey and Horehound Cough Drops

when they sell well, and are sold only to the Drug Trade?

Mr. J. S. Armitage, Paris, Ont., writes:
"Send another pair of those Honey and Horehound Cough Drops at once. I sold the first pair in only ten days."

It will pay you to use our five and ten-cent sizes of folding cartons to encourage the sale of Cough Drops; and advertise your Cough Syrup on the back of them.

LAWSON & JONES

LONDON, CANADA

Have You

Somerville's Pepsin Gum?

It is the Gum the others are selling.

It is admitted to be the best Pepsin Gum made in Canada.

Our Carving Set Premium Packages are having a great sale.

C. R. SOMERVILLE

LONDON, ONT.

STEARNS' Wine of Cod Liver Oil

WITH PEPTONATE OF IRON



Is made by combining the active constituents found in Cod Liver Oil with a fine quality of dry wine, in which a proper proportion of peptonate of iron has been previously dissolved. It possesses the alterative properties of the oil combined with the tonic virtues of iron, and is free from the objectionable features of either. The alterative properties of Cod Liver Oil do not reside in its fat, but belong to certain peculiar principles associated therewith found in the oil as well as in the fresh liver.

The United States Dispensary, in referring to Cod Liver Oil, says: "Some consider it merely a nutritive agent, having the advantage over other oleaginous substances of a readier entrance into the system, and more easy assimilation. But we cannot agree with this opinion. The probability appears to us to be that in consequence of some *peculiar principle or principles* it contains [italics ours] it exercises a stimulant and alterative influence on the processes of assimilation and nutrition, thereby aiding in the production of healthy tissue."

The *peculiar principles* spoken of in the Dispensary were discovered finally by Messrs. Gautier and Mourgues (*Journal de Pharmacie*, March, 1890), who found in the oil certain active constituents which, after testing thoroughly on animals, they believe to be the substances which account for the peculiar tonic action of Cod Liver Oil, which distinguishes it from all other oils and fats. Bouillot (Abstract of Thesis read at the French Academie des Sciences, Nov. 15th, 1892) has confirmed these researches and demonstrated the presence of these organic bodies in the fresh liver of the cod in much larger quantities. The secret of the value of Cod Liver Oil is therefore due to the presence of certain principles found in the fresh liver of the cod, which have been taken up by the oil.

Stearns' Wine of Cod Liver Oil is an original and elegant preparation which contains the alkaloids and other active principles to be found in one-fourth its volume of pure Cod Liver Oil, as well as four grains of peptonate of iron to each fluid ounce. The wine, being entirely free from the oily or fatty matter of Cod Liver Oil, is pleasant to the taste, and therefore valuable whenever Cod Liver Oil and Iron are indicated.

NOTE.—It is most important that *STEARNS'* be always specified when Wine of Cod Liver Oil with Peptonate of Iron is desired, for the use of our name is the only means of insuring protection to the patient, the physician, or ourselves.

Stearns' Wine of Cod Liver Oil with Peptonate of Iron received a *special award* for excellence at the World's Columbian Exposition.

Sold in full 16 oz. bottles at \$8.00 per dozen by all jobbers, or may be ordered from

FREDERICK STEARNS & CO.

Manufacturing Pharmacists,

WINDSOR, ONT.

DETROIT, Mich.

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The Lyman Bros. & Co. Limited

TORONTO, ONT.

A FULL RANGE OF

Handsome Perfume Atomizers

FROM \$2.00 PER DOZ. TO \$4.50 EACH.

Well Worth Inspection.NEW FORM

Lightning Fly Paper

FORTY YEARS IN THE MARKET.

10c. size, 6 pieces in packet, 50 pkt. in box

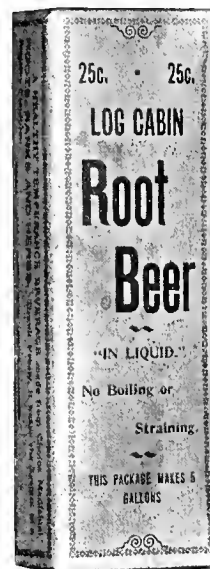
5c. " 3 " " 100 "

Made direct by Percolation from Roots, Barks, etc.,
and not artificially from Flavoring Extracts.

Log Cabin Root Beer

10c. Size—1 doz. 75c., 3 doz. at \$8.40 per gross, and 1 gross \$8.00.

25c. " 1 " \$1.75, 3 " \$20.00 " " 1 " \$19.00.



JUST ARRIVED:

New Lot Sponges.

Perfumes.

Chamois Skins.

INSECT POWDER—Our Own—Specially Pure.

Pharmacy in England.

Resignation of Mr. G. F. Schacht, Hobbies of Pharmacists—Liquid Oxygen and Air Syrup of the British Pharmacopœia Sanitas and its Developments.

(From Our Own Correspondent.)

It is a serious loss to the Pharmaceutical Society that Mr. G. F. Schacht has felt compelled to resign his seat on the council. His reason is that having now no connection with either the wholesale or retail trade, he could hardly be said to represent any section of pharmacists on the council; but the real reason is that he feels the strain too much on a constitution that has never been very robust. Mr. Schacht's name will be known for many years in the future, as in the past, in association with certain elegant forms of administering bismuth. His *liquor bismuthi* was the original preparation of which the pharmacopœial liquor is but an imitation, and not the best. The secret of the superiority of his preparation was the particular care exercised in obtaining the bismuth free from tellurium and other contaminations. For some years, however, Mr. Schacht has disposed of all interest in and connection with the firm of Giles, Schacht & Co., of Bristol, and retired from pharmacy. His deep interest in educational and other matters prevented his severing all connection with pharmaceutical affairs, and he retained his seat on the council, where he was one of the most striking personalities, and his sterling merits were recognized by all his colleagues. He was also a member of the Research laboratory committee, but does not appear to have exerted his full powers in the direction of practical pharmaceutical research so much as he probably could have done. The glamor of the aconitine investigation was too much for a seasoned practical pharmacist to resist. But the fact was that Mr. Schacht regarded the Research laboratory training as more important in the higher education of pharmacists than the results of the investigation itself. Eminently free from fads and petty jealousy, Mr. Schacht leaves the council bearing universal regrets with him, and the unanimous feeling in pharmacy is that it is impossible to adequately fill the vacancy thus created.

The annual election is bound to cause a little more excitement than usual, as there are more candidates than vacancies. But interest principally centres on the subject of presidency, and everyone is asking if Mr. Carteighe—the perennial president—will accept re-election. It is an open secret that he was within an ace of refusing re-election last year when his colleagues declined to follow his advice in the Dunstan-Paul episode over the aconitine controversy. But this matter has been definitely shelved, and there seems no reason why Mr. Carteighe should decline the honor, if his colleagues for the thirteenth time elect him—which they will in all probability do.

"Pharmacists' hobbies" is an interesting subject that the *British and Colonial*

Druggist has started in its special issue this week. Several prominent English pharmacists are allowed to descant on the beauties of their hobbies, or recreations. Swimming, golf, volunteering, yachting, philately, entomology, and art appear to have their advocates; but if a little wider field had been selected, there would have been no difficulty in including alpine climbing, fox-hunting, salmon-fishing, covert-shooting, etc., whilst photography, herbarium collecting, and fossil collecting have many pharmaceutical devotees.

Liquid oxygen and air will soon appear as commercial articles, and of more practical utility than has hitherto seemed probable. Professor Dewar has improved his process so that small quantities of the liquid can be made as a lecture experiment with apparatus that is neither complicated nor expensive. But Dr. Hampson's patent is being taken up by Brin's Oxygen Company, in London, and a practical use for the same in the refrigerating business is talked about. Dr. Hampson's method with oxygen is to subject it to a pressure of 1800 pounds to the square inch, and then allow a portion to expand, when it reduces the temperature of the surrounding compressed gas. By repeated expansion and reduction he reached 180°C., when the oxygen was liquefied and dropped from the apparatus at the rate of about 7 c.c. in four minutes. No cooling agent was employed, but when liquefaction of air is desired liquid carbonic acid was employed to reach the temperature of 192°C. It is said that Professor Dewar is sanguine that he will yet obtain hydrogen as a liquid and handle it as he has oxygen, but the cost will be enormous, and the temperature will have to be got down very near to absolute zero—273°C.

The last article on the revision of the Pharmacopœia, in the series that have been published by the *Pharmaceutical Journal*, deals with syrups. It is by far the most practical in suggested improvements of the whole series, and is really a most useful contribution. As I have had to severely criticize some of the discrepancies in the other articles, I am only too pleased to admit the general excellence shown in this treatment of such an important subject as the syrups of the Pharmacopœia. The points about storage of syrups are too often forgotten, and much of the difficulty that occurs would be obviated if proper attention were paid to filling dry bottles with the cold syrup almost to the neck, well corking, and preserving in a dark, cool place. I do not care for washed French chalk as a filtering medium, and its superiority over good kaolin is doubtful. Cold percolation, as an alternative process for making simple syrup, has one recommendation that the author does not mention; it can be arranged so that it produces the syrup without any attention—almost automatically, as it were. The suggested alteration for making syrup of orange is, possibly, good, but

no method is given for making the concentrated infusion, or soluble essence. The proposed formula is: Soluble essence of bitter orange, 1 dram; concentrated infusion of orange peel, 2 drams; simple syrup, up to 8 fluid ounces. If this syrup were improved on the lines suggested, the deletion of *Syr. aurætiæ flor.* might safely be advocated. The formula for syrup of iodide of iron, as given in the article, is a distinct advance on the present British Pharmacopœia; but it might just as well be worked out so that the pharmacist might make his 1:7 liquor, and only mix off with the syrup as required. One can hardly understand the paradox that this formula, as advocated, contains hypophosphorous acid, and yet, at the end, tests are recommended to be given so as to preclude the use of this acid. *Syr. ferri subchor.* is one of the half dozen still-born preparations introduced into the 1890 British Pharmacopœia addendum. Its proposed deletion in the new edition is sufficient comment on its value. *Syr. hemidermi* and *Syr. mori* can also be removed, to make room, without much fear of complaint. *Syr. papaveris* is very prone to ferment, and the only remedy usually made use of in this country is to add rectified spirit. Squire's method of dissolving the sugar in the concentrated infusion without driving off the spirit is the best plan.

The Sanitas Company, Limited, under the able management of the inventor, Mr. C. T. Kingzett, F.I.C., F.C.S., have made a new departure, and are now supplying all kinds of disinfectants and several specialties and chemicals. Hydrogen peroxide was always a favorite subject with the manager, and he is producing it now in large quantities. Sulphur fumigating candles and drain testers are novelties that have nothing to do with Sanitas; but, as there is money in their manufacture and their sales can be pushed at the same time as that of Sanitas, the company is wisely advised in extending its trade. It is quite on the cards, I hear, that soon a very large extension will be made, and a great number of the chemicals manufactured that, at present, are a sort of specialty of only a few manufacturers. Nor are they neglecting their main article, as a new work on "How to Disinfect" has been issued by the company, which treats very thoroughly with the value of Sanitas as a disinfectant, detergent, germicide, and antiseptic. Some of their new appliances are both elegant and ingenious, and are largely stocked by all British chemists.

Carissin in a glucoside which has been isolated from the bark of the *Carissa ovata*, variety *stolonifera*. It has many resemblances to strophanthin, and is described as a poisonous, bitter substance, producing nausea and headache. So far, it has only been produced in an amorphous condition.

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

APRIL 15TH, 1896.

Thoughts and Queries re O.S.R.D.

Are you a member of it? Are you willing to give a few dollars out of the money it has already saved you to promote its prosperity? If not, and you permit it to fail, what are you going to do? You cannot sell out under the demoralizing influence of cutting. You cannot give your profit away and have it. If you are going to cut to win, you will have to cut the throat of your neighboring druggists' trade in order to do it. Is such a prospective condition to your liking? Do you want the savor of your name to stink in the nostrils of your confrères? Are you so lost to all instincts of honor and so void of ethical principles that you could prospectively entertain such a denouncement with any degree of comfort? On the other hand, have you thought out your future prospects and how they can be enhanced? Times are not merely changing, but they have changed; and you may have to change your method, but not your principle of business conduct. You may not be entirely satisfied with your business on an even keel, but you may rest assured you would do much less so off it. Does it not encourage you to note how readily the manufacturers of remedies you sell have signed an agreement to assist in protecting your trade? The proportion of manufacturers who have signed is greater than the proportion of retailers. Are you less interested than they? The power so far exercised to secure submission has been exerted by the wholesale druggists, who are a unit in this matter. It has been generally conceded by wholesalers and manufacturers that the essence of power lies with the retailers, and that when they are united their power and influence will settle the matter. Do not be misled into believing the damaging stories you may hear. They are manufactured for a purpose, but not to aid you. Have you confidence in your fellow-druggists in your own town. Druggists are not cutters at heart, and even should your neighbors have started to cut they can be persuaded to desist. You are more concerned in the success of your confrères than are your customers. They will bait you both, and profit by any misunderstanding they can produce between you. The success of the society now

formed depends more upon the moral support you give it and the friendly co-operation of druggist with druggist than upon the financial strength supplied it. Both are necessary, however, and should be cheerfully given. If you have not given either or both in the past, do so now, as your business future will largely depend upon it.

Buying in Haste and Repenting at Leisure.

Those druggists who were persuaded into buying a stock of L. R. Harrison & Co.'s perfumes must have been ready to bless themselves when they saw the advertisements of two Toronto departmental stores, announcing that the representative of that firm, Mr. Jas. Gould, would be in their store selling their perfume at "39 cents an ounce, regular price 75 cents." In their eager anxiety for something new, some druggists fail to stop and think with whom they are dealing, and whether they are not merely advertising a maker's goods in order to enable them to sell large bills to the "cutters." It would be wise to wait until such goods are advertised in the trade journal, as an indication that it is the trade which will handle the goods, and for whose good will the management is catering. The *best* and *most reliable* firms advertise, because they are in touch with the trade. Look through our advertising columns when you desire to know who to buy from.

Nominated for Parliament.

At a meeting of the Conservative electors of the St. Lawrence Division, Montreal, Mr. Henry R. Gray, the well-known druggist of St. Lawrence Main street, was, after the first ballot, unanimously nominated as a candidate for the House of Commons for that district. A deputation appointed by the meeting waited on Mr. Gray subsequently, but were unable to persuade him to accept the nomination, his numerous business engagements preventing him from accepting. Should he have accepted the nomination, we believe his chances of election were excellent. A man held in the highest esteem by all classes and nationalities, and who has proved himself a capable legislator in matters pertaining to the welfare of the citizens of Montreal and the Province of Quebec, there is no doubt that he would have received the enthusiastic support, not only of the Conserva-

tive party, but also of others who recognize ability and integrity above the mere claims of party.

We cannot but regret Mr. Gray's decision for two reasons. In the first place, as a representative druggist Mr. Gray stands at the head of his profession, and if in Parliament might, and probably would before long, be able to do much for the advancement of pharmaceutical legislation. And, again, we regret it from the fact that our legislatures are at present too much in the hands of office-seekers and mediocre lawyers, and are wanting in the class of men essential to make them the representative councils that they should be. While there are some excellent business men amongst them, still the proportion is so small that business principles as applied to legislation become lost sight of in the mass of matter under consideration.

Photographic Supplies for Druggists.

With the advent of spring, the amateur photographer will be looking forward to an early resumption of his favorite pastime and the replenishing of his stock of necessities for the work. To the enterprising druggist this may mean a source of additional revenue, if he will take advantage of it. It is much more convenient, as a rule, and certainly more desirable, to have the numerous preparations mixed by a druggist who thoroughly understands the nature and properties of chemicals than by a photographer who, although he may be an expert at the mechanical part of his business, has not the knowledge which fits him for the more delicate parts—the manufacture of the various preparations used in the art. These have, for the most part, been purchased from the general dealer in these goods. The increasing interest, however, which is taken in this fascinating work by amateurs renders it desirable that druggists should at all times have a small stock of supplies, not only in the line of chemicals, but also a few appliances, to meet the demand, which, if not already existent in his locality, can be readily cultivated.

Since our first advocacy of this special line for the drug trade many druggists who had hitherto held aloof from it have put in stocks, and are, in most cases, meeting with considerable success in making it a paying branch of their business, besides acquiring a taste for an art which, in itself, is a source of pleasure as well as profit. The "kodak fiend" is everywhere to be found; and if druggists would share in the profits attendant on this branch, they should cultivate it by keeping a supply of the goods necessary to fill any orders; and, in many cases, it would be very desirable to have a "dark room" for the use of the roving amateur

- - OFFICE OF - -

Dominion Dyewood & Chemical Co.

SOLE AGENTS IN CANADA FOR

Farbenfabriken vorm. Friedr. Bayer & Co.

ELBERFELD, GERMANY.

LEGAL WARNING.

TORONTO, APRIL 2ND, 1896.

DEAR SIRs—

We find that Paracetphenetidin, even Acetanilid and Antifebrin, are now imported under the name of Phenacetine. We, therefore, beg to again call your attention to the fact that the **FARBENFABRIKEN VORM. FRIEDR. BAYER & Co.**, Elberfeld, Germany, are the sole owners of the trade mark "PHENACETINE," which is registered under the Trade Mark and Design Act, on December 4th, 1888, at Ottawa, and they only are entitled to make use of that trade mark. We, therefore, caution everyone against selling Phenacetine under that name which is not manufactured by the Farbenfabriken, and we will, without further notice, prosecute all parties infringing the said trade mark, under 49 Vict., chap. 63, sec. 17.

Besides this, the buyers have the guarantee for a pure, genuine make if they are supplied with the Phenacetine by us, the sole agents of the Farbenfabriken for this country. The products sold by infringers mostly contain Antifebrin and similar impurities, which may be very destructive to the human organism.

(Sgd.) **Dominion Dyewood & Chemical Co.**

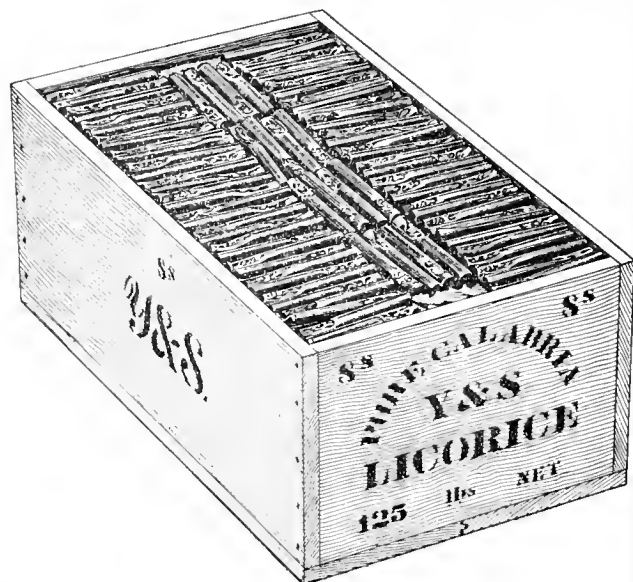
Sole Agents in Canada.

THE FOLLOWING PHARMACEUTICAL PRODUCTS ARE MANUFACTURED
BY THE **FARBENFABRIKEN VORMALS FRIEDR. BAYER & CO.**:

Phenacetine-Bayer,	Piperazine-Bayer.	Sulfonal-Bayer.
Salicylic Acid.	Antinonnin.	Tannigen.
Losophan.	Salophen.	Somatose.
Lycetol.	Aristol.	Trional.

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WE ARE ALSO MANUFACTURERS OF

Acme Licorice Pellets

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Tar Licorice and Tolu Wafers .. and .. Pure Penny Stick

If you cannot get the above at your jobbers, please address us as below :

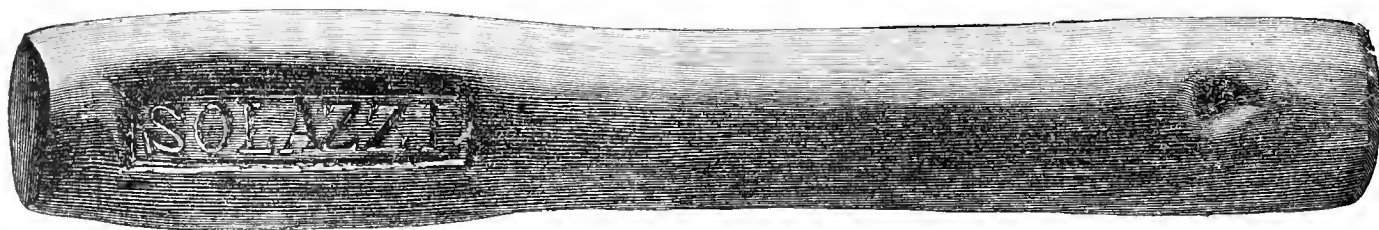
YOUNG & SMYLLIE

Brooklyn, N.Y., U.S.A.

“Solazzi”

THE CHEMISTS' BRAND

Liquorice Juice



The Testimony of “The Lancet”

The following is from “The Lancet” of March 30th, 1895 :

“The above brand has long been known to be of standard purity. We found the specimen to be completely soluble in water, and entirely free from impurities of any kind. It is, therefore, well adapted for the pharmaceutical purpose for which it is so useful, while as a popular demulcent it is both safe and reliable.”

Recommended also by “The British Medical Journal,” “Health,” “The Chemist and Druggist,” “Food and Sanitation.”



ASK FOR SHOWCARDS AND HANDBILLS.

Cod-Liver Oil Emulsions.*

By PROFESSOR GAY (Montpellier University).

Cod-liver oil emulsions, the use of which has become general, have their origin in the old form of emulsive syrups with a cod-liver oil basin, but the objection which caused the latter to fall into disuse is avoided. These syrups, although satisfactorily disguising the taste and smell, only contained about 8.5 per cent. of oil. Emulsions as now prepared are intended to disguise the appearance, taste, and smell of the oil, and to contain, as a rule, 50 per cent. of the active ingredients; they also serve for administering such remedies as phosphates, hypophosphites, arseniates, creosote, eucalyptol, etc., when their association with cod-liver oil is desired. Numerous processes have been proposed for the preparation of cod-liver oil emulsion. The main object of this paper is to discover a formula which can be used extemporaneously, and, in addition, fulfil other necessary conditions. We will first discuss the conditions which should be fulfilled by a formula for an emulsion, as we now understand it.

(1) *Simplicity, no Special Form of Apparatus being Needed.*—All commercial formulae have their good points. It has been shown that a prolonged and energetic pounding—which is ensured by using mechanical beaters, or Merier's beater with its three-jointed pestles—ensures the stability of the emulsion by favoring the perfect division of the fatty body, but a pharmacist's working formula should only require the use of a mortar.

(2) *Use of the Usual and Unobjectionable Emulsifying Agents.*—The most popular agents can be grouped as follows:

(a) USUAL EMULSIFYING AGENTS.*Gum Acacia.*

Gum Tragacanth.—Acacia emulsions are more stable if tragacanth is used as well.

Gum and Starch.—The combination is useless.

*Glycerin.**Glycerin and Gum.**Gelatin* (white gelatin or Irish moss).*Yolk of Egg.**Condensed Milk.**Saponin.***(b) DIGESTIVE FERMENTS OR THEIR PRODUCTS.**

Malt Extract.—The preparation of the U.S. Pharmacopœia should not be used, as it is only the dextrin and maltose contained in this extract which are of service, the diastase being no use at all.

*Pancreatin.**Peptone.***(c) ALKALINE SUBSTANCES.***Sodium Carbonate.**Lime Water.*

Glycerin and Lime (prescribed by many practitioners).

*Saccharated Lime.**Translated from the *Repertoire de Pharmacie*.

With regard to the above emulsifying agents, the use of saponin or quillata does not seem free from danger; malt extract, condensed milk, and other agents are not generally used, whilst alkaline substances answer in special cases. I prefer to use gums.

(3) *Stability of the Emulsion.*—Absolute stability is impossible; even the best makes require to be shaken before taking; still, separation should be slow, and brisk agitation should cause perfect re-emulsification. This result is easily arrived at by means of gums.

(4) *Greater Strength.*—Fifty per cent. is the usual standard. This leaves a sufficient margin for alteration in the emulsifying agent, and, if necessary, in the other remedies.

(5) *Suitable Correctives.*—Although it is difficult to disguise the odor, the taste is more easily masked, but the acrid sensation in the throat is seldom entirely suppressed. Two classes of correctives are used:

(a) SWEETENING CORRECTIVES.

Sugar, glycerin, and various syrups have often been combined with the oil with good results. Stout has recommended ammoniated liquorice, using 50 to 60 grammes to each litre of oil. Saccharin may, perhaps, be looked upon as the most powerful corrective. Its intense sweetness overcomes the taste of the oil. The proportion used varies from 0.05 to 0.2 grammes per litre. M. Eisenhitz has proposed to dissolve it in its own weight of acetic ether previous to introducing it into the oil. But as the question arises whether it is advisable to give saccharin in long-repeated doses, especially to children or to invalids whose digestive organs are weak, it is, perhaps, better to confine ourselves to sugar and liquorice.

(b) AROMATIC CORRECTIVES.

The combination of various essences with the oil is a well-known plan. Bitter almond, citron, neroli, eucalyptus, mint, canella wintergreen, aniseed, sassafras, vanilla, and roasted coffee are looked upon as the most efficacious, whether used alone or variously combined. The use of a perfumed spirit is, in my opinion, still more efficacious, cognac, rum, and kirsch can be recommended. Robinson has proposed using a ten per cent. solution of chloroform in alcohol in the proportion of 4 grammes to 30 of oil, whilst Foster recommends 10 drops of ether to each tablespoonful of oil. Care should be taken not to use essences exclusively, as they are apt to fatigue the stomach.

(6) *Sufficiently Lengthy Preservation.*—To guarantee indefinite keeping properties, as manufacturers are in the habit of doing, is useless, as such a condition of things can only be arrived at by the excessive addition of preservatives, such as glycerin, spirits, and essences. The use of glycerin is recommended by many authors and specialists in the quadruple capacity of emulsifying agent, by reasons of its

viscosity, and of sweetening, preservative, and analeptic agent. The last effect does not seem certain, seeing that the nutrient properties of glycerin have been disputed. With regard to its emulsifying power, is not its viscosity balanced by its high density? I prefer to exclude it from a general formula. It will suffice for our purpose, since the preparation is made extemporaneously, if its keeping qualities can be guaranteed for the time necessary to use up such quantities as the pharmacist may be able to sell, say, one to two litres.

The formula which I propose fulfils the foregoing requirements satisfactorily, and the simplicity of the process in particular excels all others. Two forms of it have been worked out in response to the different tastes of patients and physicians: first, a creamy emulsion having a mixture of acacia and tragacanth as the emulsifying base, and a stable consistency which only allows of a very slight aqueous separation at the bottom, even after standing for a long time; secondly, a liquid emulsion, having a basis of acacia and liquid consistence, which soon separates into two layers, easily mixed by being shaken when taken.

A. CREAMY COD LIVER OIL EMULSION.

Cod-liver oil.	500 grammes
Finely sifted sugar.	190 "
Powdered gum acacia.	5 "
Powdered gum tragacanth.	5 "
Coffee infusion.	200 "
Rum or kirsch.	100 "

Mix the sugar and gums in a mortar; weigh the oil and cold coffee infusion into the bottle which will contain the emulsion, and shake until mixed. Pour into the mortar, at the same time constantly stirring, sufficient of the mixture to make a semi-liquid; weigh the spirit and add it to the mixture of oil and coffee remaining in the bottle; shake and mix with the emulsion by degrees.

B. LIQUID COD-LIVER OIL EMULSION.

The creamy emulsion can be modified so as to form the liquid emulsion by replacing the tragacanth by the same quantity of acacia. The corrective chosen in these typical formulae imparts a color of *café au lait* to the emulsions, in which the odor and especially the taste are conveniently disguised. But in this particular the formula can be modified *ad lib.* Various remedies can also be introduced.

(7) *Change of Correctives.*—First, the spirit can be omitted and the quantity of coffee infusion increased to 300 grammes; in this case the coffee no longer suffices to cover the taste of the oil, and it becomes necessary to such an essence as bitter almonds dissolved in the oil to the extent of 20 or 30 drops per kilogramme. Secondly, one of the essences previously mentioned can be substituted for the coffee itself, by dissolving previously in the cod-liver oil; the infusion of coffee is then replaced by water or an aromatic water. Thirdly, a more intense sweetness is obtained by mixing 30 grammes of glycerin with the aqueous vehicle.

(8) *Addition of Other Remedies.*—First, in the aqueous vehicle, hypophosphite of sodium or calcium, phosphoglycerate of sodium or calcium (in the last instance the alcohol had better be omitted), alkaline, iodide, sodium, arseniate, soluble salts of iron, etc., can be dissolved. Hypophosphites and iodides cause a disagreeable taste, in addition to that of the oil; the addition of a strongly-flavored corrective is then necessary, such as bitter almond, alone, or associated with coffee or kirsch, eucalyptus essence, etc.

Secondly, 300 grammes of lime-water can be substituted for the aqueous vehicle; in this case the liquid emulsion formula will suffice, the lime-water itself having an emulsive action, which makes up for the absence of the tragacanth; still, the stability of the emulsion will be increased by mixing the oil and lime-water in the mortar instead of the bottle, the water being gradually mixed with the oil by trituration. A strong aromatic corrective will still be necessary.

Thirdly, such remedies as creosote, guaiacol, eucalyptol, iodine mercuric iodide, iodoform, etc., which are insoluble in water, can be dissolved in the cod-liver oil if the extent of the solubilities be remembered. In support of the foregoing I will give, in conclusion, an example of an emulsion to which commonly occurring remedies have been added:

CREAMY EMULSION OF COD-LIVER OIL
AND HYPOPHOSPHITES.

Cod-liver oil.....	500 grammes.
Essence of bitter almonds ...	20 drops.
Essence of wintergreen.....	20 "
Finely sifted sugar.....	190 grammes.
Powdered acacia.....	5 "
Powdered tragacanth.....	5 "
Distilled water.....	285 "
Calcium hypophosphite.....	10 "
Sodium hypophosphite.....	5 "

Dissolve the essences in the oil, the salts in the water, and proceed as before.—*Pharmaceutical Journal.*

Palm Oil.

By J. H. RAYNER & Co., Liverpool.

Palm oil is a semi-solid body, one of that important and well-marked group of organic compounds in which are included all oils, fats, and greases, whether animal, vegetable, or mineral. It is prepared from the fruit of the oil palm, *Elwis Guineensis*, and imported to Europe from numerous seaports and river mouths on the west coast of Africa, chiefly between Bathurst on the north and St. Paul de Loanda on the southwest coast, a seaboard of 3,000 miles. The writer has also handled a small shipment of extremely fine palm oil grown in the Brazils, which, though sold at the high price of £40 per ton, never led to any further import, and for all practical purposes the world need hardly expect to draw any important supply of oil from any region except that part of the African continent mentioned above. The fruit of the palm somewhat resembles an enormous fir

cone, containing a large number of drupes about the size of a chestnut, with a thin red outer skin, and an oily pulp, with a hard nut in the centre, the whole bearing a resemblance to an enlarged hawthorn berry. The fruit is bruised and boiled by the natives, and the resulting oil is then skimmed off, and bartered by them with the European traders. By cracking the nuts are obtained what are known as palm-nut kernels, which were at one period considered useless, and it said that the first consignment of them to Liverpool was disposed of in the Mersey; but numerous palm kernel crushing mills are now established in Liverpool, Hamburg, Marseilles, and various other towns, and palm kernel oil is now an important competitor with cocoanut oil in the manufacture of soap, while the residue, ground into meal and cake, is also a valuable item as food for stock. Following the abolition of the African slave trade came the development of a produce trade, of which palm oil was in those days the most considerable and valuable portion, and by 1871 the import had reached 45,000 tons, largely imported in sailing ships of 200 to 1,200 tons burden; but nearly the whole business of carrying African produce is now done by steamers, the main portion of them coming to Liverpool, whence the contents are distributed to the country and outports, while there is also a German line to Hamburg and some French trade to Havre and Marseilles.

Palm oil, like the other bodies which form the group, is, roughly speaking, divisible into two main constituents, oleine and stearine—the liquid and the solid. It was first used in the place of tallow in the manufacture of soap, but the large proportion of stearine in the oil soon brought it into favor with candle manufacturers, whose chemists were at that period searching for products to compete with wax and tallow, and found what they wanted in palm oil, of which, at the present time, they are the largest consumers. Mention should also be made of the presence of glycerine in palm oil; and the enormous development of the glycerine trade of late years for manufacturing explosives of all kinds has not been without influence in stimulating a demand for the oil.

In earlier years the price of palm oil ranged round an average of about £30 and £40 per ton, rising to £50 and over when the Crimean war cut off the supply of Russian tallow. The discovery and development of mineral oil and stearine in America, and latterly Russia, has completely revolutionized the grease trade, refined petroleum competing directly as an illuminant with stearine candles, while candles themselves are now largely made from paraffin scale, the stearitic ingredient of mineral oil. In 1886 the price of palm oil sank below £20 per ton. The average price of good oil the last ten years has been rather over £20 per ton, and the total import to Europe may be about 60,000 to 70,000 tons or more annually.

The best soft oil comes from Lagos, the hardest stearine oil from the Congo, between these are quite fifty or sixty named imports differing in color in various shades of yellow, red, orange, and brown, and varying in impurity from 1 to 20 per cent., according to the care bestowed on preparation, and in hardness or softness with from about 10 to about 70 per cent. of stearine. We leave it to geologists, or horticulturists, to decide how far the latter is determined by the nature of the soil.—*Oils, Colors, and Drysalteries.*

Three Good Business Hints.

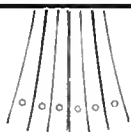
Lloyd's Commercial Guide gives the following advice to its readers: Never sign a paper without reading it; and if, after reading, you do not understand it, have it thoroughly explained before you put a signature to it. It is best to get some third person, who is not interested in the matter at all, to explain the meaning of what is not clear, or to point out words that may have two meanings in the document. Always make a memorandum in your little book of any contract you undertake for money or any agreement to work. It saves much trouble to keep a memorandum book and put down the dates when you either pay or receive money. Whenever money passes on account, set it down. If any money or thing of value goes through your hands, give a receipt for it and make a memorandum. Your receipt settles the amount that passes, and that cannot be disputed. When you pass it to a third party, get a receipt and keep it. This form is as important in the transfer of income, trust money, or valuables among your own family as with other persons.

Never allow a person to do any service for you without first agreeing upon the cost to you. This rule, strictly adhered to, will save you many annoyances.

Incompatibility of New Remedies.

Möerck points out that trichloride of iodine is decomposed by alcohol and partially by water; the aqueous solution liberates iodine from iodides; ammonia added to it forms the explosive iodide of nitrogen; reducing agents liberate the iodine; and many organic bodies, among others the fatty oils and alcohol, decompose it. Hydroxylamine hydrochlorate is very unstable, and readily forms explosive mixtures; it is a powerful reducing agent; alkalis liberate the base, which is unstable and explosive. Formalin is incompatible with ammonia, the alkaline bisulphites, and reduces alkaline metallic solutions, and gelatin becomes insoluble through its action. Iodophenin is decomposed by water, liberating iodine. As it readily parts with its iodine, it should not be mixed with any body which has a strong affinity for that metalloid.—*Journ. & Pharm.*

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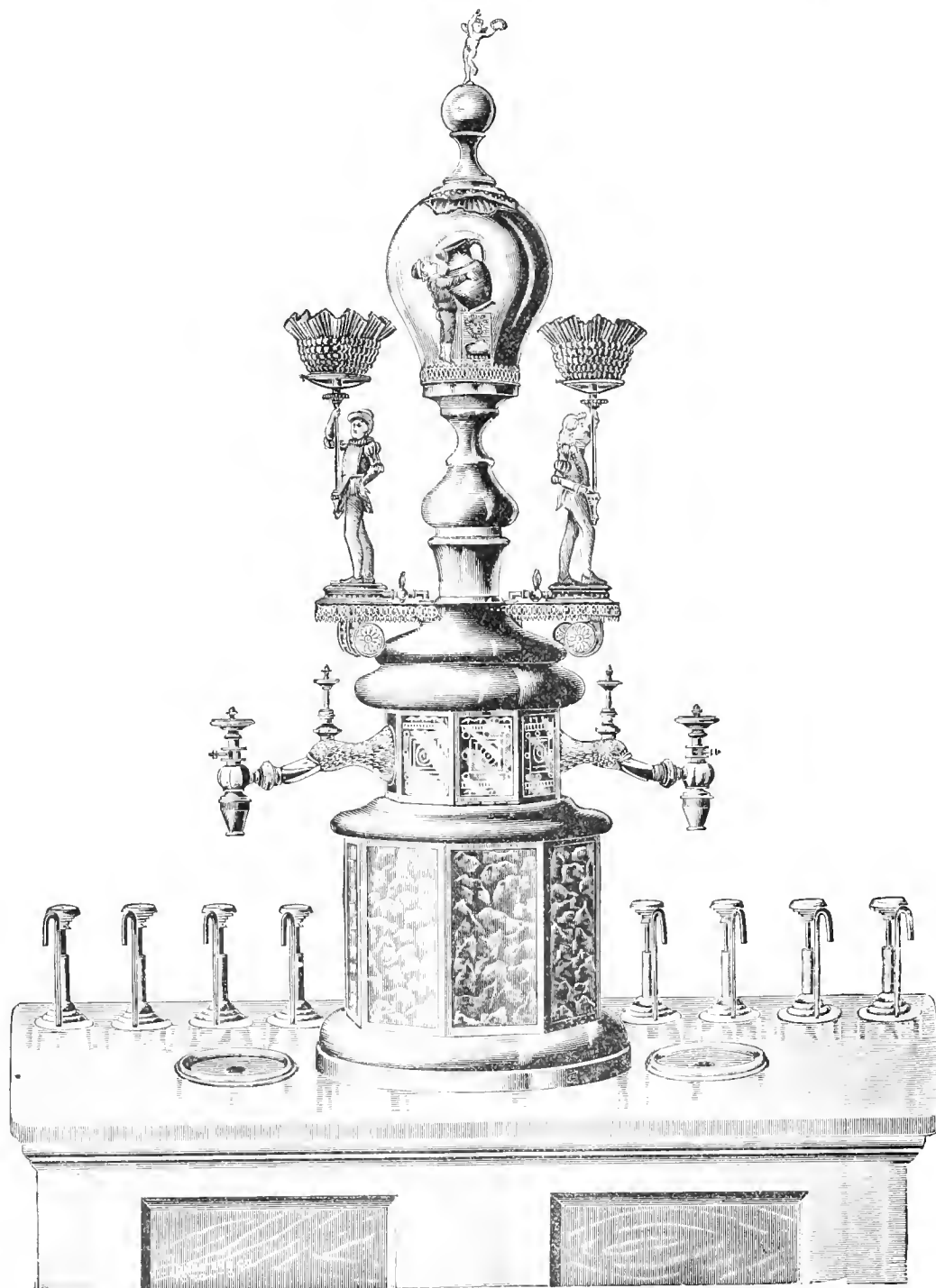
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A Table Showing the Result of Triturating Certain Substances Together.

E. A. RUDDIMAN, PH.M., M.D., VANDERBILT UNIVERSITY.

Certain solid substances when triturated together produce liquids, sometimes due to the formation of new compounds, sometimes forming hygroscopic mixtures. Following is a table for ready reference showing whether any two substances mentioned therein will, when rubbed together, form a liquid or not. In the experiments equal weights of the two chemicals were taken. Unless the mixture showed some appearance of becoming sticky or liquid within a few minutes the result was put down as a powder.

Abbreviations: P. = Dry Powder. L. = Liquid. D.P. = Damp Powder. P.M. = Pasty Mass.

1 = Some authorities state that a liquid or pasty mass results, but in the experience of the writer such is not the case. On rubbing antipyrin with chloral hydrate a very slight stickiness was noticed at first, but this quickly disappeared on continued rubbing.

2 = Liquefies on standing. 3 = Dries on standing.

4 = Carbohc acid in a damp atmosphere absorbs enough moisture to liquefy. Perhaps some of the results are due to this property, and also to the heat produced in the trituration.

5 = Resin, when powdered alone and rubbed hard, has a tendency to make an adhesive mass; but unless the agent with which it was triturated exerted some influence, the result was put down as a dry powder.

	Acetanilid.	Antipyrin.	Beta-Naphthol.	Camphor.	Camphor Monobromated.	Chloral Hydrate.	Exalgin.	Menthol.	Methacetin.	Naphthalin.	Phenacetin.	Phenol ₄	Pyrogallol.	Resin ₅	Resorcin.	Salicylic Acid.	Salol.	Sodium Salicylate.	Thymol.	Urethane.
Acetanilid.....	P	P ¹	P	P	P	DP ³	P	P	P	P	P	L	P	P	DP ²	P	P	P	L	P
Antipyrin.....	P ¹	P	L	P	P	P ¹	P	P	P	P	P	L	PM ³	P	PM ³	P ¹	DP ³	P ¹	L	L
Beta-Naphthol.....	P	L	P	L	P	P	L	L	P	P	P	L	P	P	P	P	P	P	P	L
Camphor.....	P	P	L	P	P	L	P	L	P	P	P	L	L	P	L	P	L	P	L	L
Camphor Monobromated.....	P	P	P	P	P	L	P	P	P	P	P	L	P	P	P	P	L	P	L	P
Chloral Hydrate.....	DP ³	P ¹	P	L	L	P	L	L	L	P	L	L	P	P	P	P	L	P	L	L
Exalgin.....	P	P	L	P	P	L	P	L	P	P	P	L	L	P	L	L	L	P	L	L
Menthol.....	P	P	L	L	P	L	L	P	P	P	P	L	L	L	L	P	P	P	L	L
Methacetin.....	P	P	P	P	P	L	P	P	P	P	P	L	P	P	DP ³	P	P	P	P	P
Naphthalin.....	P	P	P	P	P	P	P	P	P	P	P	L	P	P	P	P	L	P	P	P
Phenacetin.....	P	P	P	P	P	L	P	P	P	P	P	L	P	P	P	P ¹	P	P	P	P
Phenol ₄	L	L	L	L	L	L	L	L	L	L	L	P	L	L	L	P	L	P	L	L
Pyrogallol.....	P	PM ³	P	L	P	P	L	L	P	P	P	L	P	P	P	P	P	P	P	L
Resin ₅	P	P	P	P	P	P	P	L	P	P	P	L	P	P	P	P	PM	P	PM	PM
Resorcin.....	DP ²	PM ²	P	L	P	P	L	L	DP ³	P	P	L	P	P	P	P	P	P	P	L
Salicylic Acid.....	P	P ¹	P	P	P	P	L	P	P	P	P ¹	P	P	P	P	P	P	P	P	L
Salol.....	P	DP ³	P	L	L	L	L	P	P	L	P	L	P	PM	P	P	P	P	L	L
Sodium Salicylate.....	P	P ¹	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Thymol.....	L	L	P	L	L	L	L	L	P	P	P	L	P	PM	P	P	L	P	P	L
Urethane.....	P	L	L	L	P	L	L	L	P	P	P	L	L	PM	L	L	L	P	L	P

The Privileges of Travellers.

Lord Hampden, the new Governor of New South Wales, attended the commercial travellers' annual banquet in Sydney recently. In the course of his speech he said :

"I can only tell you that the most paramount feeling in my mind at the present moment is one of agreeable surprise in finding myself in such exclusive company. (Laughter.) I may have had ambitions at times, I may have dreamt dreams, I may have thought it might be my lot some day to entertain or be entertained by great men ; but never have I supposed that I should find myself the honored guest at an association of commercial travellers. I have always associated commercial travellers in my own mind with the best room in the inn—(laughter)—the room with the best accommodation, from which the public were judiciously and carefully excluded—(laughter)—the room where the chops were more succulent and the punch was better brewed than in any other place ; and I remember that once upon a time a timid host informed me, when I asked him to admit me into that secret chamber, that it was as much as his living was worth, because he would be boycotted if he did so. Therefore, you may imagine my pleasant surprise at being your honored guest this evening."—*Ex.*

Medicated Granules.

By M. MANSIER.

A short time since this novel form of exhibiting medicines was introduced to the notice of therapists, and seemed to please both doctors and patients, not because the use of the granules was more convenient than that of preparations of the old "armamentarium," but because they represented a pharmaceutical novelty. The granules are obtained by saturating specially broken sugar with medicated solutions, and allowing the solvent to evaporate. As far as is possible, the liquid used to make the solution should have as its base alcohol, ether, or chloroform, so as not to dissolve the sugar. Then to reduce this to the granular form it must be gently triturated in a marble mortar so as to avoid the formation of powder, and afterwards sifted through a metallic sieve of five meshes to the centimetre. The sugar from this first sifting is now freed from adherent sugar dust by means of a sieve, either of hair or covered with gauze such as is used for surgical dressings, with about twelve meshes to the centimetre.

As a typical example of such granular medicaments, I will now give the method of producing "granulated kola" (kola granulée), which is at present very much in vogue on the continent : Take a hydro-alcoholic extract of kola, 7.50 grammes ; granulated sugar, 150 grammes. Dissolve the extract in half its weight of alcohol at 60° by means of a water bath ; pour the solution on the granulated sugar placed

in a marble mortar, mix well by means of a stirring rod, place on a thin sheet of paper, and dry between 20° and 30° C., taking care to separate from time to time the adhering masses of granules. When dry, preserve in wide-mouthed bottles. Each teaspoonful of these granules weighs 4 grammes, and contains 0.20 gramme of extract. Not only medicinal extracts, but almost any medicine can be made to lend itself to this way of preparation. The glycerophosphates of the alkali metals being very soluble in water, but only very slightly so in alcohol, may be dissolved in their weight of water, and then an equal quantity of alcohol at 60°, added before pouring over the sugar. As for the glycerophosphate of lime, now so much prescribed, this is rather insoluble in water (1-15) ; a way out of this difficulty is, however, found in dissolving the salt (previously mixed with twice its weight of alcohol at 60°) with the aid of lactic acid. When this is done a solution is certainly formed, but it is not of glycerophosphate of lime, but consists of lactate of lime and free phospho-glyceric acid.—(*Répertoire*).—*Pharmaceutical Journal*.

Mistura Ferri Composita -A Wrinkle.

Dissolve the sugar with the iron sulphate instead of mixing it with the myrrh and potassium carbonate. This seems a very little trifle to take notice of, and yet it is surprising what a difference "little trifles" sometimes make. Dear old Redwood used to tell us that sugar was unfriendly to emulsions ; and, acting on that hint, the writer tried a little departure from the letter of the law, on the lines above named. The result justified the experiment. The emulsion of myrrh, pot. carb., and rose water was more easily formed, and more milky without the sugar ; and not a little irritation in future was saved. To get a really good emulsion, the myrrh (nice, oily pieces) should be rubbed hard with the alkali till it becomes not only pulverulent, but pasty, before adding any rose water. When that is done, the emulsion can (when diluted) be safely strained through coarse muslin, to remove bits of bark, etc. If not too late, the Pharmacopœia revisers might take note of this.—W. Johnston, in *Pharmaceutical Journal*.

To Preserve Thick Extracts.

Add gradually a few drops of glycerine to the surface of the extract in the container. Four drops—an insignificant quantity so far as the medicinal action of the extract is concerned—is said to prevent for a long time the drying of the extract even at a temperature of 24-27° C.

For preserving dry extracts, Schacherl calls attention to a process proposed by Kremel, who uses gum arabic in place of sugar of milk. He dries the thickened extract with a dense solution of the requisite quantity of gum arabic on the

water bath ; restores the prescribed weight, if necessary, by the addition of powdered gum, and stores the finished product in the form of dry powder. Thus prepared, the dry extracts are said to keep unchanged for a long time without massing in clumps.—*Bulletin of Pharmacy*.

The Reason They Fail.

The man who purchases an article for one dollar and sells it for ten cents advance may delude himself in the belief that he made ten per cent. on the transaction, but such is not the case. Rent, taxes, insurance, interest on investment, wear and tear, travelling, bookkeeping, stationery, and other miscellaneous expenses, must be deducted from that ten cents. We know quite a number of men doing a small business on the ten per cent. basis who wonder why they are always hard up. These are the men who fail without knowing just why.—*The Furniture Journal*.

The Incompatibles of Chloride of Lime.

Professor Jorissen gives an account of some experiments on the incompatibilities of this body, amongst which the chief are the following, on account of the dangers of explosion : Glycerin (unless diluted with water), fats, oils, and essences, iodides, and ammonium chloride. In the latter case there is some danger of nitrogen chloride being formed.—*Journal de Pharmacie d'Anvers*.

Look Pleasant.

The clerk should remember that he is engaged to perform certain duties, and he should discharge them to the best of his ability, cheerfully, ungrudgingly. Do not cultivate a brusque, unevil manner, or carry a sullen face. They displease and insult customers, and are not just to your employer. If you think your work is too hard, that you are imposed upon, have a frank explanation with "the boss" and secure a readjustment of the matter, or, if this fails, seek another situation. So long as you are engaged and on duty look pleasant.—*Era*.

A crystalline compound of ferrous chloride and nitric oxide has been obtained by V. Thomas by introducing the gas into an ethereal solution of ferrous chloride, when the liquid turns black and leaves a syrupy substance on evaporating off the ether. After this has stood for some time it becomes crystalline. The crystals have the following composition : $\text{FeCl}_2 \cdot \text{NO} \cdot 2\text{H}_2\text{O}$. On evaporating the solution at 60° to 100° the compound is obtained free from water. The salt containing water of crystallization occurs in well-formed black crystals ; the anhydrous salt forms small, yellow-colored crystals. Ferrocyanide of potassium produces a white precipitate with the solution.—*Apoth Zeit. Jahr.*

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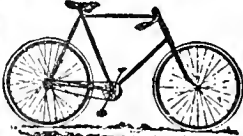
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In Fig. 13 x, the converging power of the convex being counteracted by the diverging of the concave lens, parallel rays

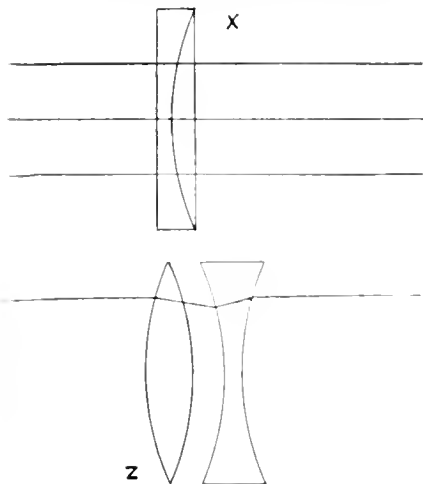


FIG. 13.

of light are parallel after passing through them, the two lenses having the same radius of curvature. In Z is shown the passage of a ray refracted by a convex and a concave lens.

Parallel rays passing through a lens formed of two segments of a sphere of 10-inch radius are refracted so that they come to a real or positive focus 10 inches behind the lens: this is the focal distance. The lense is numbered according to its focal length, and the focus made 10 inches behind it is called the principal focus.

The image formed at the real or positive focus is a real image; it is smaller than the object, and inverted (see Fig. 14), as the rays from the various points of the object after refraction cross each other before forming the picture. The shorter the focal length of the lens, the smaller, sharper, and clearer is the picture.

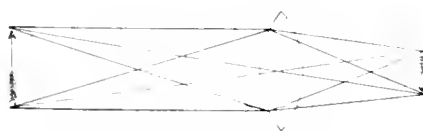


FIG. 14.

Then rays from a distance of 20 feet or more, that is, parallel rays, are brought to a focus at 10 inches behind a 10-inch lens; but if they come from points situated nearer than 20 feet, being then divergent rays, some of the refractive power of the lens is expended in making them parallel before it can converge them, so that the focus of divergent rays refracted by a convex lens is further behind it than its principal focus. If the rays diverge from a distance double the focal distance in front of a convex lens, the focus will be the same distance behind it.

The nearer the object is to the lens, the more divergent are the rays, and the

further back behind the lens is the focus. The point at which divergent rays from a point are focussed as a point (see Fig. 15) is termed a conjugate focus, as the



FIG. 15.

two points are interchangeable. In Fig. 15 the divergent rays from A are brought to a focus at B, divergent rays from B are focussed at A.

If the rays are divergent from a point situated just so far in front of the lens as the focal distance, say, they are from 10 inches in front of a 10-inch lens, then the refractive power is just sufficient to render them parallel when they emerge from the lens after refraction. In Fig. 16



FIG. 16.

the rays from A at a distance equal to the focal length of the lens are rendered parallel, just as parallel rays would be refracted to A.

If the rays are very divergent from a point nearer than the focal distance, say, they are from an object situated 9 inches in front of a 10-inch lens, then the refractive power of the lens will not be sufficient to render them even parallel. After refraction the rays will emerge from the lens divergent, although much less so than when incident. If the eye be behind the lens the rays can be projected backwards, making what is called a virtual image of the object. In Fig. 17 the rays

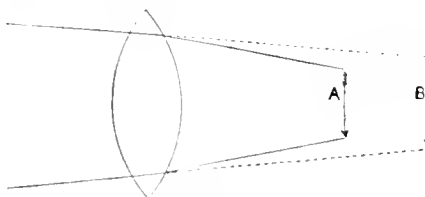


FIG. 17.

from A, placed 9 inches in front of a 10-inch convex lens, are refracted, and the virtual image B is formed on the same side of the lens as A. This image is upright, apparently larger and farther away than the object A. This explains why a convex lens magnifies an object brought within its focal length, such object being seen under a greater angle.

Note that any convex lens does exactly the same amount of refracting whether the incident rays be parallel, divergent, or very divergent.

A concave lense refracts rays outwards, and, therefore, can have no real focus; it has, however, a virtual or negative focus on the same side of the lens as the object, formed by projecting backward the rays in the direction they took after refraction by the lens. The image formed is virtual; it is upright, and apparently smaller and nearer than the object. In Fig. 18 the rays from A, the object, are bent outwards by the lens, and the image B, being seen under a smaller angle, is

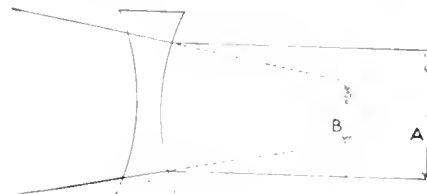


FIG. 18.

diminished in size, and apparently nearer than A. This is equally true if the rays refracted by a concave lens be parallel or divergent before refraction; but if the latter, the image is smaller than if the rays were parallel.

The optical centre of a lens is that point through which rays pass without being refracted, so that they emerge from the lens in the same direction as they entered it. The optical centre lies on the principal axis at a point that divides the axis in the ratio of the radii of curvature. All rays that do not pass through the optical centre are bent from their previous course to an extent dependent upon their distance from that centre; the farther away, the more they are bent.

The ray passing through the centre of the lens from the centre of the object is the axial ray; it suffers no refraction, and it is on this, the principal axis, that the principal focus of the lens is made. As, however, rays from luminous points are incident to the lens at every part of its anterior surface, some one ray must be incident in a direction perpendicular to the surface at every point on the surface of the lens. Such rays are the secondary axes, and the



FIG. 19.

foci formed on them are secondary foci. They cross the principal axis at the optical centre of the lens, and pass through with little or no deviation. In Fig. 19 the rays from the point A are incident to the lens, and are focussed to the point B. The dotted line AB, being perpendicular to the surface at the point of incidence, passes through O, the optical centre, and emerges from the lens without any, or with very

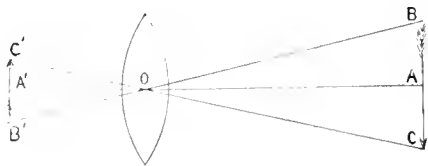


FIG. 20.

little, deviation. In Fig. 20 the secondary axes *BB* and *CC* cross the principal axis *AA* at *O*, the optical centre of the lens.

The principal focus only is considered in calculating the refractive power of a lens.

Convex lenses converge rays transmitted by them; they are called positive because they have a real focus, and are also called plus (sign +), because they increase the refractive power of the eye.

Concave lenses diverge rays transmitted by them; they are called negative because they have no real, but only a negative focus, and are also called minus (sign -) because they decrease the refractive power of the eye.

In order to know the number of a convex lens, it is merely necessary to measure with a yard stick the distance at which a focus is obtained of light entering a doorway or window that is situated twenty feet or more away. On a piece of white paper fastened to the wall a clear inverted image of the view outside the door or window can be obtained if the number of the lens be not higher than 24. Weaker lenses are difficult to focus, especially if the light be dull. The stronger the lens the more the rays will be refracted, and therefore the sooner they will meet, and so the shorter is the focal length. The weaker the lens the greater the focal distance. The picture thrown on to the screen will be sharp only at the exact focal distance of the lens; when it is held nearer or further away than this exact distance the image is indistinct. The stronger the lens, the smaller and sharper is the picture.

The inch or old system of numeration is based on the fact that a double convex lens formed of two segments of a sphere of 1 inch radius refracts parallel rays of light so as to bring them to a focus at one inch; this lens is the unit or standard of the inch system. A lens that has one-half this power refracts rays only to one-half this extent, and so brings them to a focus at two inches. A lens with $\frac{1}{10}$ the power of the unit bends the rays only enough to bring them to a focus at ten inches. Oculists and opticians mark such lenses as $\frac{1}{2}$ or $\frac{1}{10}$, but in the trade they are called No. 2 convex or No. 20 convex, and so with all the other numbers.

The concaves are similarly numbered according to the radius of their curvature. The amount of refraction outwards in any concave lens is sufficient to render parallel the inwardly refracted rays of the corresponding convex No. (see Fig. 13). A No. 20 concave bends the rays outwards to exactly the same extent as No. 20 convex bends them inwards; so, to-

gether, their united refraction amounts to nothing.

To add together, that is, to find the strength of, two convex lenses, say, Nos. 24 and 10, as the refractive power of the one has to be added to the refractive power of the other, proceed thus:

$$\left(+\frac{1}{24}\right) + \left(+\frac{1}{10}\right) = \frac{10}{240} + \frac{24}{240} = \frac{34}{240} = \frac{1}{7} \text{ (about),}$$

so these two lenses together make a $\frac{1}{7}$, or, as generally called, a No. 7 convex. The small fraction need not be considered.

To add together two lenses of opposite refraction, for instance, No. 12 concave and No. 15 convex (here the concave is the stronger, so the result must be concave), proceed thus:

$$\left(+\frac{1}{15}\right) + \left(-\frac{1}{12}\right) = \frac{12}{180} - \frac{15}{180} = -\frac{3}{180} = -\frac{1}{60},$$

and the two together are therefore equal to a No. 60 concave.

To add, say, No. 20 concave and No. 10 convex, here the convex is the stronger, so the result is convex:

$$\left(+\frac{1}{10}\right) + \left(-\frac{1}{20}\right) = \frac{20}{200} - \frac{10}{200} = +\frac{10}{200} = +\frac{1}{20},$$

therefore the two combined equal No. 20 convex.

For quick working all that is necessary is, when both lenses are convex or both concave, to divide the multiple by the sum of the two numbers.

For instance, Nos. 20 and 10, then

$$20 \times 10 = 200$$

$$20 + 10 = 30$$

$$30 \overline{) 200} 6$$

If one number is convex and the other is concave, then divide the multiple by the difference. For instance, Nos. 30 concave and 10 convex:

$$30 \times 10 = 300$$

$$30 - 10 = 20$$

$$20 \overline{) 300} 15 \text{ convex,}$$

as of the original numbers the convex was the stronger.

The new scale of numeration is very much more simple. It is called the dioptric (dia, through; opto, to see), which means refractive. In this system, instead of measuring the focal length, which is the result of the refraction of a lens, the refraction itself is measured, and the unit is a diopter (sign D). The diopter of refraction is the quantity of converging power in a convex lens that is sufficient to bend rays of light that are parallel before entering the lens to a focus one metre behind it.

A metre (sign M) is a French measure of length equal to 39.37 inches English or American. For general purposes, it is sufficiently close to calculate forty inches as equal to one metre. If 1D of refraction makes a focus of parallel rays at forty inches, then 2D will refract just double as much, and the focus will be found at twenty inches; a 4D convex lens having four times the refractive power of 1D will retract the light sufficiently to make the focus ten inches, and so on through the scale.

In connection with diopters it is customary to use the sign + for convex and

- for concave, and this should be noted, as often oculists merely put the sign + or -, and the number of the lens without adding the sign D; therefore, when you read +4 it should be taken as meaning four diopters, whereas 4 Cx should be understood as representing a four-inch convex lens.

To find the strength of two or more lenses combined by the dioptric system is particularly easy. It is merely necessary to add or subtract, and the result is + or -, according to which is the higher or stronger number. For example:

$$+2 \text{ and } +4 = +6$$

$$+4 \text{ and } -3 = +1$$

$$-5 \text{ and } +3 = -2$$

$$-5 \text{ and } -2 = -7$$

$$+3 \text{ and } -3 = 0$$

Now as +1D refracts parallel rays so that they focus at 40 inches, it is plain that it is equal to a No. 40 convex lens of the old system; a +2D equals a No. 20, and a +40D lens is the same as a 1 inch convex lens.

To translate the number of a lens of the one scale into that of the other, the rules are as follows:

To turn inches into diopters multiply the refractive power by 40; thus a No. 5 equals 8D, as

$$\frac{1}{5} \times \frac{40}{1} = \frac{40}{5} = 8.$$

To turn diopters into inches: Divide the refractive power by 40; thus, 10D equals a No. 4, as

$$\frac{10}{1} \div \frac{40}{1} = \frac{10}{40} = \frac{1}{4}, \text{ or a No. 4.}$$

But a more simple method of converting lenses of either scale into that of the other is to divide 40 by the known number. For instance, you wish to know what is the equivalent of a 5D lens in the inch system; then $40 \div 8$, so 5D is the same as an 8-inch lens, or an 8D equals a 5-inch. In making this division there is often a small fraction left over, as many numbers will not divide evenly into 40; these fractions need not be considered, but the next nearest number must be taken; thus 3D equals No. 13 inch. The rule is that if the number will not go exactly into 40, divide it into 39, or the nearest possible number to the one or the other. For instance, 3.50D = No. 11, 3.25D = No. 12, 4.50 = No. 9.

In the same way, if the inch number be known, divide it into 40 to get the dioptric measurement; thus No. 16 equals 2.50D, as $40 \div 16$ goes 2.50 times; No. 12 equals 3.25D, as $40 \div 12$ gives 3.25 (about); a No. $2\frac{1}{2}$ -inch goes 16 times into 40, so that it is equal to a 16D.

It must be noted also that the fractions of inches are always expressed as vulgar fractions, as $2\frac{1}{2}$ inch, while fractions of diopters are invariably expressed in decimals, as 6.50D. The mere putting of a decimal fraction denotes that the lens required is of the dioptric scale, this system being entirely based on decimal calculations.

By dividing into 40, the number of a dioptric lens, you also get the focal length of that lens in inches. If the focal length

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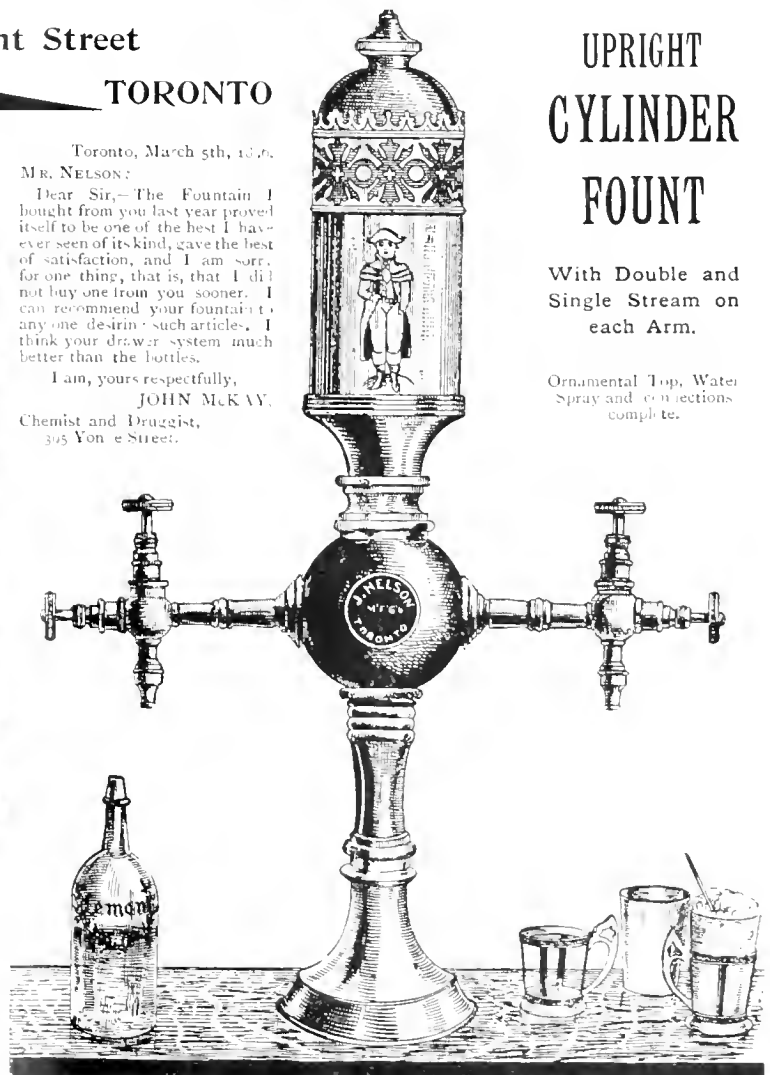
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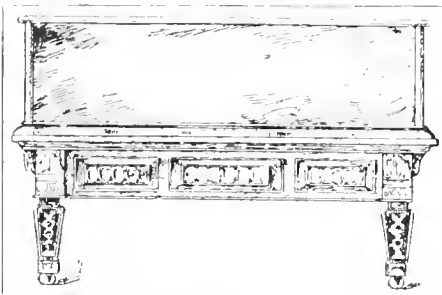
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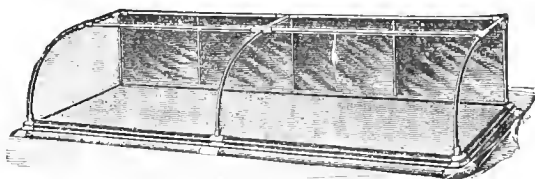
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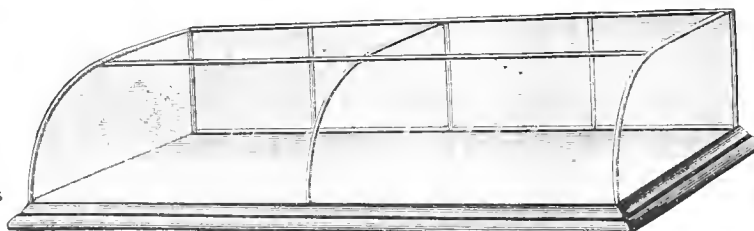
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is required in centimetres or millimetres, then divide the number into 100 for the former, into 1,000 for the latter. $2\frac{1}{2}$ centimetres or 25 millimetres equals 1 inch; therefore a 5D lens has a focal length of 8 inches, 20 centimetres or 200 millimetres. By dividing the focal length in inches into 40 you get the refractive power of the lens. If the focal length is known in millimetres, divide into 1,000 to get the refractive power. Thus the focal length of a lens is 200 millimetres; then $\frac{1000}{200} = 5D$.

The inch in various countries differs, so that the number of a foreign (not English or American) made lens numbered in inches is different from the home-made article. The French inch is longer than the English, and it only takes 37 of them to make a metre, while nearly 40 English are required. A No. 18 lens of French make is about equivalent to a No. 20 English or American. The dioptric scale is, however, the same the whole world over.

The only measurement of refraction is by diopters, that must be remembered. You cannot measure refraction by inches, nor can you measure focal length by diopters. So many diopters represent so much bending power of the lens; so many inches or centimetres focal length represent the distance behind the lens at which the focus is obtained.

The employment of the dioptric scale of measurement and the thorough grasping of the fact that a certain number of diopters means a certain quantity of refraction facilitates in an extraordinary degree the comprehension of defects of sight and the proper correction by lenses.

A convex or positive lens is known by the following tests:

- (1) It is thicker in the centre than at the edges.
- (2) It magnifies when the object of within its focal length.
- (3) It gives a positive focus, so that a real image of a bright picture, such as a candle flame, a doorway or a window, can be obtained by it and thrown on to a screen.
- (4) If an object distant a few feet be looked at through the lens and the latter moved, then the object will appear to move in the contrary direction.

A concave or negative lens is known by the following tests, which are exactly the contrary of those that prove a convex lens:

- (1) It is thinner in the centre than at the edges.
- (2) It diminishes objects looked at it through it.
- (3) It has no real focus, so no image can be got on a screen. It has only a negative focus, and gives only a virtual image by projecting the rays backwards.
- (4) When moved in any direction, an object seen through it appears to move in the same direction as the lens.

If a lens made of plain glass be held in front of the eye, the rays from an object

looked at are perpendicular to the surface of the lens; there is no refraction, the object looks exactly the same as if no piece of glass were held between it and the eye, and if the lens be moved the object remains stationary. This test of lenses by moving them in front of the eye and noting whether the object looked at moves in a contrary or in the same direction as the lens is by far the simplest and most perfect method of distinguishing between convex and concave lenses, and is practically the only one when the glass is very weak. It is sometimes rather hard for beginners to perceive the direction of the movement, but a little practice soon overcomes that difficulty.

The lens must not be moved backwards and forwards—that only confuses: it must be held between the first finger and thumb, about eight inches in front of the eye, and moved directly downwards by one clear movement. The object looked at should be a thin, horizontal line, such as a shelf. When the lens has been moved down, you will be looking at the horizontal line through the extreme upper part of the lens, and will be able to see, at the same time, the line on either side of the lens (see Fig. 21). If the part or

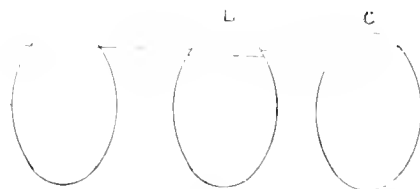


FIG. 21.

the line seen through the lens be continuous with the parts seen outside, the lens is a plano, as in A, Fig. 21. If the part of the line seen through the lens is lower than the other parts, the lens is concave, as in B, Fig. 21. If the part of the line seen through the lens is higher than the other parts, the lens is convex, as in C, Fig. 21. The lens should not be held too close to the eye; as then you cannot see on either side of the glass. If, however, the lens be a strong convex, it must be brought closer, or you will not be able to see through it at all; but in such cases the movement is so very decided that there is no difficulty in deciding as to the positive or negative refraction. It should be noted that the deviation of the object is always in the direction of the apices of the prisms of which the lens is practically formed.

If a strong convex lens be looked through when held a certain distance away greater than its focal length; for instance, if a 5-inch convex lens be held 10 inches in front of the eye, the rays of light passing through it will have come to a focus and crossed in the air, and will, therefore, enter the eye divergent, so that the movement of the object when the lens is moved will be the same as that of a concave lens.

You will not, however, be liable to make a mistake in such a case, as the

thickness of the lens in the centre alone will show its kind of refraction without any special test, besides which the object is seen inverted, the rays of light having crossed before entering the eye.

You will find it of the greatest convenience to get an analyzing card, as in Fig. 22. It consists of a sheet of white



FIG. 22.

cardboard about 2 ft. square, with a clean cross formed of black lines, $\frac{1}{4}$ -inch wide, running straight across it vertically and horizontally. This should be employed for all testing and neutralizing of lenses of every description. It is equally good for sphericals, cylinders, or prisms, and for analyzing, neutralizing, centering, etc. It is best used at a distance of about 10 ft.

By the displacement of the horizontal line on the analyzing card when the lens is moved vertically downwards, it is easy to neutralize and learn the number of an unknown lens. First, note if it be convex or concave. If it be concave, put over it a convex as near the number as you can judge; then move the two lenses together, and, if the movement be still that of a concave, the neutralizing convex is not strong enough, and you must try a stronger convex lens. If with the first neutralizing lens you try you find the movement of the two combined to be that of a convex, the neutralizing convex lens is too strong, and you must try a weaker one. By reducing or increasing the strength of the neutralizer, you will presently find that convex lens which, when placed over the concave, will cause absolutely no displacement of the line when the two together are moved; they will act as plain glass (refer to Fig. 13). The number of the neutralized concave is the same as that of the neutralizing convex. To find the number of an unknown convex lens, the neutralizing must, of course, be done with concave lenses.

When the lens is very strong, say, more than 8D, it is difficult to get an absolute neutralization; there will always be some slight movement in the peripheral (outside) portion of the lenses, although near the centre there will be practically none when the proper neutralizer is applied; anyhow, the latter will cause decidedly less movement than either the next stronger or the next weaker lens, so that you cannot fail to learn the right number.

This failure to get complete neutralization with strong lenses is due to spherical aberration, or, more likely perhaps, for the following reason.

A substance very like vanillin has been obtained, but only in very minute quantity, from essential oil of cloves.

Advertising.

Practical Hints on Advertising.

Copyright, 1895, CHARLES AUSTIN BATES.

It is facts that people want. I have heard a merchant say: "Oh, it don't pay to advertise, because people don't believe the ads. Mr. So-and-so always lies in his ads, and people measure us by his standard."

He was wrong, of course. People soon find out the truth-telling place, and trade gravitates that way with absolute certainty.

Tell something—tell it true, and in the best papers—and it will pay every time.

* * * *

Some way or other, it always happens that the judicious advertiser succeeds.

Judicious means many things.

Some men better never advertise. Some things better never be advertised. Men who are not honest—who do not keep their promises—whose advertisements mislead, and whose stores disappoint—they had better let advertising alone.

* * * *

There is a man in New York—a furniture dealer—who says that he never expects to sell to the same man twice. He uses all means to get the best of the deal the first time. Makes all the profit he can on the first sale, because he knows that the buyer will never come back—that he will discover the cheat.

Now, it wouldn't pay that man to advertise, and he knows it, and he doesn't advertise.

But a fairly honest business, conducted by a man who keeps pretty near to the letter of truth, it will always pay to advertise.

* * * *

Most business men are careless in their statements. They have become so used to writing "biggest," "grandest," "greatest," "best," that they can only think in superlatives.

They mean to be honest—probably are. They are merely careless, and failure is the price of carelessness in advertising: maybe not absolute failure, but something very short of success.

* * * *

Every advertisement should have careful consideration. All the discrepancies should be eliminated—no careless statements allowed.

If you can't take time to attend to your advertising carefully, better cut it down. Cut off the parasites. Cut off novelties—programmes. Cut off the paper to whom you "give a hundred, just to get rid of it—to keep it quiet." Cut off the paper that is too cheap to be good.

A good advertisement in the best paper will do more good—more in proportion to price—than anything else you can do.

A good advertisement of good goods in a good paper will always pay.

Always.

In most newspapers there is a dead level of advertising excellence, or rather lack of excellence. The advertisements are generally about the same degree of badness. Probably in every town there are two or three advertisers who secure distinct prominence for their announcements by giving them a little attention and infusing into them a little life and interest.

* * * *

A man doesn't have to get his head very far above the sea of mediocrity to command wide attention. Nine cases in ten, when a man says that advertising doesn't pay, he has arrived at this conclusion, because he has expected the newspaper to do it all. If he were to neglect his show window and his store front as he neglects his advertising space, he would have still other complaints to make about business in general. If the window were never washed and the display of goods never changed, he would not expect many people to stop and lose themselves in an ecstasy of admiration; and yet he does seem to expect just this sort of thing for an old moss-covered advertisement.

* * * *

There is nothing magical about advertising. It is one of the tools of trade, just as a chisel is a tool of carpentry. The man who handles the chisel properly can do many useful things with it. If he is careless and awkward he is likely to cut himself.

It's the same way with advertising.

* * * *

Anyone who looks through the advertising columns of the average newspaper cannot help seeing that much of the money that is paid for advertising in them is wasted.

The money is wasted, not because the space is not good, but because it is not utilized to good advantage. The space is as fertile as the richest bottom land, and it would yield immense crops of business if it were only cultivated properly. There is no use in expecting the impossible. The age of miracles is past. The age of mystery about advertising is rapidly passing. The time is coming when all business men will think of their advertising in the same common-sense way that they think of the rest of their business.

* * * *

Advertising is amenable to good business rules. The trouble is that people have gotten into the habit of saying that advertising is uncertain—that you cannot tell anything about it, and that it is a very mysterious thing altogether. This sort of talk may be expected from the publishers of various advertising "schemes." It is to their advantage to have advertising to be considered more or less of a gamble, because advertising in such media is a gamble, and a very unsafe one at that. Compared to it, a "bunco" game is an innocent, joyous amusement.

* * * *

Newspaper advertising is certain if it is properly done. It is as certain as any

other business transaction. Everything in business has to be done right, or it will not pay. Buying advertising is as certain as buying carpets, coffee, or coal. You can lose money in doing either.

* * * *

I do not think much of the alleged humorous cuts that are used more or less all over the country—the ones which run to puns and "cuteness." They may attract attention, but attracting attention isn't the best an ad can do. A comic cut is not convincing. It does not tell anything or prove anything about the man or the goods advertised.

Montreal College of Pharmacy.

The closing sessional examinations of the Montreal College of Pharmacy were held on Friday and following days. The results of these examinations will be added to those obtained at the Christmas examinations, and students obtaining the highest marks on the combined examinations will receive the prizes allotted to the different subjects. The preliminary examination for students entering the study of pharmacy took place on Thursday, April 2nd, in the cities of Montreal and Quebec, candidates being required to give notice to the secretary ten days prior to the date of examination. The major and minor examinations will be held on April 14th and following days in the Montreal College of Pharmacy.

Montreal College of Pharmacy.

The combined session examinations of December and March of students attending the Montreal College of Pharmacy for the session of 1895-96, which closed on March 31st, resulted as follows, the names of the successful students who have passed being given in order of merit, namely:

Botany—J. G. Gillespie, A. Lebeau, W. Frothingham Roach, J. H. Charbonneau, C. M. DuGay, A. P. Fortin.

Materia Medica, French junior class—Henri St. George, P. G. Mount, H. Genereau, J. B. T. Biron, W. Barolet, J. E. P. Lemieux, Louis Fortin, J. V. Murray, A. J. Lapointe, Gaston St. Jacques, C. M. DuGay, T. E. Gagner.

English senior class—W. A. Smallwood, R. J. Lunny, W. Frothingham Roach, D. R. O'Neil, James Frackum.

Chemistry, English junior class—W. A. Smallwood, R. H. D. Benn, and G. H. Voss, equal; F. J. Lemaistre.

Chemistry, French senior class—None of the students in this department obtained the requisite marks to pass.

ALUMINIUM SOLDER.—The following has been recently recommended: Aluminium 1 part, 10 per cent. phos. tin 1 part, zinc 11 parts, tin 29 parts. It is said to fulfil the requirements demanded so perfectly that it is now generally adopted both in this country and Europe.

"St. Augustine"

Registered at Ottawa.

Our "St. Augustine" (Registered) is the perfect wine for communion or invalids. Your wine merchant can supply you at \$4.50 a case, one dozen quarts. See that you get the genuine article. All good articles counterfeited. See that our name is on label and capsule.

Our "St. Augustine" (Registered), of 1871 vintage, a choice sweet, mild wine, and equal to imported wines at double the price.

J. S. HAMILTON & CO.
BRANTFORD

Sole Agents for Canada for the Pelee Island Wine Company

A DRUGGIST'S SPECIALTY.

Curtis & Son's
Yankee Brand
Pure Spruce Gum

Is meeting with the success
its high qualities merit.

A TRIAL ORDER SOLICITED.

CURTIS & SON
PORTLAND, ME., U.S.A.

M'COLLOM'S

Rheumatic Repellent

By intrinsic merit has obtained extensive sale in Canada and the United States as the most reliable cure known for rheumatism, as it not only relieves, but also thoroughly removes the cause from the system. It is neatly put up in \$1.00 bottles, taken with good effect on the liver, kidneys and blood, and has been in successful use over twenty years.

Many druggists to whom we are under great obligation express much satisfaction in handling this reliable remedy.

Sold by Wholesale Firms of Montreal, Toronto, Hamilton, London, Winnipeg, and by Retail Druggists generally.

Awnings

AND

Window Shades

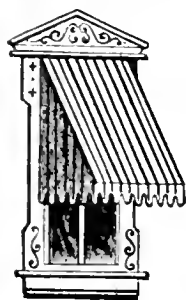
FOR

**HOUSES, OFFICES,
AND STORES**

Made by experienced workmen,
and of the best materials, at prices
as low as is consistent with good
work and materials.

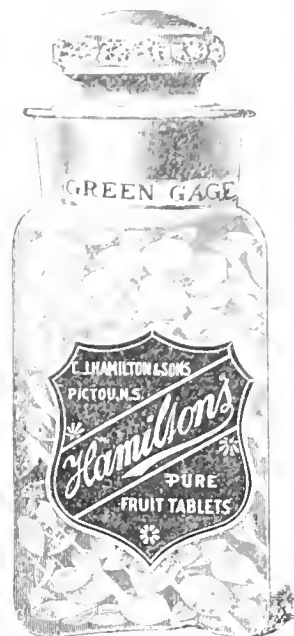
ESTIMATES FURNISHED.

Wm. Bartlett,
16 Adelaide St. West,
TORONTO.

**Fine Fruit Tablets****ENGLISH FORMULA
TABLETS**

Have been our specialty and have been a success. Packed in elegant Flint Glass Jars, large glass stopper, the finest package in the Dominion. Also in round jars, similar to English, but made two inches shorter to fit the ordinary shelf. A large variety. List of flavors and prices on application.

**G. J. HAMILTON
& SONS,**
PICTOU, N.S.

**Gray's****CASTOR-FLUID**

For the hair.

DENTAL PEARLINE

An excellent antiseptic tooth wash.

SULPHUR PASTILLES

For burning in diphtheritic cases.

SAPONACEOUS DENTIFRICE

An excellent antiseptic dentifrice.

These Specialties

All of which have been well advertised,
more particularly the "Castor-Fluid,"
may be obtained at all the wholesale
houses at Manufacturer's price.

HENRY R. GRAY

ESTABLISHED 1859.

Pharmaceutical Chemist

22 St. Lawrence Main Street

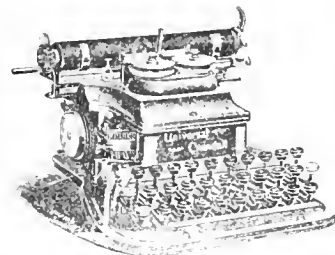
(Cor. of LaGauchetiere)

MONTREAL**Levy & Co.****Printers**

Druggists' Labels,
Supplies, etc.

A SPECIALTY

Toronto, Ont.

**THE UNIVERSAL GRANDALL
No. 3****Just Out**

Writing in Solid
INTERCHANGEABLE TYPE
PERMANENT ALIGNMENT.

THE LATEST IMPROVEMENTS!
WHAT MORE CAN YOU ASK?

Write for catalogue.

THE GRAND MACHINE CO.
GROTON, N.Y.

BRAYLEY, SONS & CO.**Wholesale Patent Medicines**

43 and 45 William Street, - MONTREAL.

OUR SPECIALTIES:

TURKISH DYES.

DR. WILSON'S HERBINE BITTERS.

Sole Proprietors of the following:

Dow's Sturgeon Oil Liniment

Gray's Anodyne Liniment

Dr. Wilson's Antibilious Pills

Dr. Wilson's Persian Salve

Dr. Wilson's Itch Ointment

Dr. Wilson's Sarsaparillian Elixir

French Magnetic Oil

Dr. Wilson's Worm Lozenges

Dr. Wilson's Pulmonary Cherry Balsam

Dr. Wilson's Cramp and Pain Reliever

Dr. Wilson's Dead Shot Worm Sticks

Nurse Wilson's Soothing Syrup

Clark Derby's Condition Powders

Wright's Vermifuge

Robert's Eye Water

Hurd's Hair Vitalizer

Dr. Howard's Quinine Wine

Dr. Howard's Beef, Iron and Wine

Strong's Summer Cure

Dr. Howard's Cod Liver Oil Emulsion

JUST PLAIN TOBACCO OF THE HIGHEST GRADE

FLAVOR AND FRAGRANCE UNEQUALLED

FORTIER'S

Cigars and Cigarettes

GIVE BEST OF SATISFACTION AND WILL INCREASE YOUR SALES.

We Sell to most Druggists
But we are anxious to Sell to you

WRITE
TO-DAY
FOR
A
SAMPLE
ORDER

Lafayette

Cigars and Cigarettes 5 cents

Creme de la Creme

Cigars and Cigarettes 10 cents

Royal Turkish

Cigarettes 15 cents

Sonadora

Cigars and Cigarettes 15 cents

Greme de la Greme Cigar Co.

MONTREAL.

"Mist" COUGH
LOZENGES

SELL ON SIGHT
GOOD PROFIT..

10cts.

THE KEY MEDICINE COMPANY,
395 YONGE STREET, TORONTO.

"DUNRAVEN" 10c.

"F. & S." 5c.

These are both very
high-class Cigars.

Fraser & Stirton,

Send for Sample Order.

LONDON, Ont.



Show Case Display Box Davis' Fly Poison Felts
plus 4 Felts in each package. 5c. per package.

FREE To Every Druggist in Canada
Till May 1st

WE offer to the trade free till May 1st, One Show Case Display Box, containing twenty 5-cent packages of Davis' Fly Felts, to every purchaser of three boxes, at the reduced price of \$6.75, making \$15 worth of Fly Felts cost but \$5.75.

This is the best special offer we have yet made to the trade. We are prepared for an unusually large demand, but it would be wise to order early. The sale of Davis' Fly Felts has increased very rapidly in all parts of Canada, and is now of great proportions. Order through your regular suppliers; our business is done exclusively through the wholesale trade. If supplier has not our special offer in stock, write us, and we will see you fully supplied. The following well-known and reliable wholesale dealers will be pleased to book orders for special offer:

Victoria, B.C., Landley & Company.
London, Ont., J. A. Kennedy & Co.
London, Ont., London Drug Co.
Hamilton, J. Winer & Co.
Toronto, Ont., Northrop & Lyman Co.
" " Millburn & Co.

Toronto, Ont., Elliot & Co.
" " Lyman Bros. & Co.
Montreal, Que., Lyman Sons & Co.
" " Brayley Sons & Co.
St. John, N.B., T. B. Barker & Son.
" " The Canadian Drug Co.

Halifax, N.S., Brown & Webb.

POWELL & DAVIS COMPANY - - CHATHAM, ONT.

Wine of the Extract of Cod Liver

Sold by all first-class
Chemists and Druggists

CHEVRIER

General Depot:—PARIS,
21, Faubourg Montmartre, 21

This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis, and all diseases of the Chest.

Wine of the Extract of Cod Liver with Creosote

General Depot:—PARIS,
21, Faubourg Montmartre, 21

CHEVRIER

Sold by all first-class
Chemists and Druggists

The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

Formulary.

ELIXIR OF SALICYLIC ACID COMPOUND.

The following formula has been recommended by H. W. Preissler, Ph.G., in a paper read before the Kentucky Pharmaceutical Association:

Salicylic acid.....gr.	640
Sodium bicarbonate.....	480
Glycerin.....fl. oz.	4
Water....."	4
Potassium iodide.....g.	250
Fld. ext. cimifuga.....fl. dr.	4
Fld. ext. gelsemium....."	2
Compound spirit orange.....	1
Alcohol.....fl. oz.	4
Syrup.....enough to make	10

MALTED COD-LIVER OIL EMULSION.

Cod-liver oil.....	8 ounces
Extract of malt.....	8 "
Yolks of eggs.....	two
Tragacanth gum, powdered.....	16 grains
Hot water.....	1 dram
Essence of lemon.....	10 minims
Essence of bitter almond.....	10 "

Weigh the extract in a half-pint graduate and add the warm water to thin it, stirring quickly. Beat up the two yolks in a mortar with the powdered tragacanth and add the oil and extract alternately; lastly, the flavoring essences, which may be varied to suit the taste.

COMPOUND CHARCOAL POWDER.

The following combinations are in vogue:

1.—Charcoal.....	2	Parts.
Calcined magnesias.....	2	
Bismuth salicylate.....	3	
Oil anise.....	1	
Teaspoonful just before each meal, or shortly after.		
2.—Charcoal.....	25	Parts.
Powdered quassia.....	4	
Magnesia carbonate.....	4	
Teaspoonful several times a day.		
3.—Charcoal.....	4	Parts.
Calcined magnesias.....	4	
Bismuth sub-carbonate.....	1	
Powdered anise.....	2	
Sodium bicarbonate.....	3	
Teaspoonful half an hour after each meal.		
4.—Charcoal.....	5	Parts.
Powdered peppermint.....	5	
Powdered coriander.....	5	
Powdered senna.....	1	
Teaspoonful shortly after meals.		

—*Southern Journal of Pharmacy.*

EMULSION OF TURPENTINE.

A writer in the *Apothecary* has recommended the following method:

Oil.....	fl. 5 ss
Tragacanth.....	5 ss
Syrup.....	fl. 5 j
Water, enough to make.....	fl. 5 ij

VIAU'S MOUTH WASH.

Salicylic acid.....	1	Drams.
Chloroform.....	10	
Tincture of benzoin.....	10	
Tincture of cinnamon.....	10	
Alcohol (aromatic).....	130	

—*Pharm. Centralh.*

SOAP POWDER.

Calcined soda.....	1,500	Parts.
Powdered soap (ordinary washing).....	250	
Powdered borax.....	250	

—*Drogisten Zeitung.*

CREAMY EMULSION OF COD-LIVER OIL.

Cod-liver oil, 500 parts; finely sifted sugar, 190 parts; powdered gum acacia, 5 parts; powdered gum tragacanth, 5 parts; infusion of coffee, 200 parts; rum or kirsch, 100 parts (*Med. Mod.*). Mix the sugar and the gums in a mortar, and in the bottle which is to contain the emulsion shake together the oil and the cold infusion of coffee. Pour sufficient of this liquid into the mortar to make a paste, emulsify thoroughly, add the rum to the liquid remaining in the bottle, and gradually mix with the emulsion in the mortar.—*Pharmaceutical Journal.*

SODIUM IODIDE IN PILLS.

According to R. van Gool (*Journ. de Pharm. d'Anvers*), sodium iodide can be easily and quickly made into pills by adopting the following formula: Sodium iodide (anhydrous), 4 gm.; powdered sugar, 40 mgm.; distilled water, 1 gm.; starch powder, 60 mgm. Triturate the iodide and sugar together, add the water, then the starch, and incorporate thoroughly. The pasty mass is covered with starch powder, and left awhile, then rolled whilst still soft. They should be dried by rolling them in a slightly warmed capsule, and, finally, sugar-coated.—*Pharmaceutical Journal.*

FERTILIZER FOR GARDENS.

Ammonium sulphate.....	10	Parts.
Sodium nitrate.....	15	
Ammonium phosphate.....	30	
Potassium nitrate.....	45	

FERTILIZER FOR LAWNS.

Potassium nitrate.....	30	Parts.
Sodium nitrate.....	30	
Calcium sulphate.....	30	
Calcium superphosphate.....	30	

FERTILIZER FOR FRUIT TREES.

Potassium chloride.....	100	Parts.
Potassium nitrate.....	500	
Potassium phosphate.....	570	

This total amount of 1,170 grams to be used for one tree.—*Rev. Chem. Ind.*

FRENCH BLACKING (JACQUARD'S).

Freshly calcined animal charcoal.....	750	Parts by Weight.
Muriatic acid.....	250	
Treacle.....	1000	
Prussian blue.....	30	
Indian lake.....	30	
Olive oil.....	500	
	2,500	

Treat the charcoal with the acid, stir in the finely ground Prussian blue and Indian lake, then the olive oil, and finally

the treacle. The olive oil may be replaced by a cheaper one. The blacking made from spent charcoal from sugar refineries goes mod'ly.—*Oil's, Colors, and Drysalteries.*

VARNISH FOR VIOLINS, ETC.

Mastic in tears.....	10	Parts.
Dammar soft white.....	5	
Colored turps.....	100	
Raw linseed oil.....	5	

It is made as follows: A layer of ground glass is placed in a wide bottomed flask, then the 100 parts of the colored turps, then the mastic, and the two left in contact together for several hours, with frequent shaking. The dammar is then added, which takes another twenty-four hours for solution. In winter each period will require to be extended to thirty hours. The oil is then added, and well incorporated with the varnish by frequent shaking. After standing for another fifteen hours in diffused daylight, the whole is filtered through a cotton cloth. The varnish is greatly improved by keeping from six to eight months before use. The red coloring matters are sandalwood deep (Calliatour), dragon's blood; and gamboge for the yellow, mixtures of the three giving any desired tint.—*Oils, Colors, and Drysalteries.*

A TONIC GLYCERIDE.

The following formula for a quinine and iron tonic will not upset the stomach in dyspeptic conditions:

R. Quinine sulphate.....	2 parts.
Distilled water.....	Or each a sufficiency.
Diluted sulphuric acid.....	
Liquid ammonia B.P.....	
Lactic acid.....	2 parts.
Calcium lactophosphate.....	6 "
Iron lactate.....	3 "
Hot distilled water.....	12 "
Warm glycerine.....	175 "

Dissolve the quinine sulphate with a sufficiency of the dilute acid and water, precipitate with the ammonia, and wash the precipitate. Dissolve precipitated quinine in the lactic acid and add to the glycerine; proceed to dissolve the iron lactate and calcium lacto-phosphate in the hot distilled water, add to the glycerine, and filter. Each dram contains:

Quinine lactate.....	3 gr.
Iron lactate.....	1 gr.
Calcium lactophosphate.....	2½ grs.

The solution is of a bright straw color, with a pleasant, non metallic, bitter taste, keeps well, and deposits no sediment on standing.

The dose for children under ten is two to three teaspoonfuls daily; for adults the dose is one tablespoonful in water three daily, after meals.—*British and Colonial Druggist.*

FERRUM PLETONATUM LIQUIDUM.

The *Monit. de la Ph.* gives the following formula for this popular preparation: (1) Five grams of peptone (dry) are dissolved

in a mixture of 50 grams each of glycerin and bitter almond water; to this are added 6 grams of solution of ferric chloride (1.26 sp. gr.) and 25 grams of water. Filter and keep cool.

(2) The "Peptonate de fer Jalliet" is obtained by dissolving five grams of dry peptone in 50 grams of water with addition of 12 grams of solution of ferric chloride (1.26 sp. gr.); the precipitate formed is redissolved by the addition of 55 grams of a 10 per cent. solution of ammonium chloride, adding further 75 grams of glycerin, and water sufficient to make 200 cc.

(3) Egg albumen, 10 grams (dry), are dissolved in 150 grams of water, and 0.5 gram of pepsin added. The mixture is allowed to stand 24 hours at 40° C., when 90 grams of liquor ferri oxychlor. (1.047 sp. gr.) are added with 30 grams of syrup and 550 grams of water. The entire mixture is heated to 90° to 95° C. On cooling, 100 grams of alcohol or brandy are added with sufficient water to make 1,000 grams, when, after standing eight days, the clear fluid is drawn off.—*Phar. Era.*

Photographic Notes

A HINT FOR AMATEUR PHOTOGRAPHERS.—The Belgian Photography Association Bulletin gives the following formula for absorbing the yellow-green rays on isochromatic plates, and preventing the "photographic halo" which is the despair of amateurs; the preparations which are usually put on the backs of plates being insufficient:

Collodion, 2 cc., p. 100...	100 grams
Erythrosine.....	0.3 grams
Aurantia	0.3 grams
Castor oil.....	2 c.c.

Can be washed off after finishing.

YELLOW screens for iso work may be made, according to M. Leon Vidal, by fixing an unexposed plate, washing well and drying, and then immersing for some minutes in a 1 per cent. solution of picric acid to which sufficient ammonia has been added to make it smell faintly, and then drying.

PYROCATICHIN AS A DEVELOPER.—Now that pyrocatechin is being produced on a commercial scale, says a writer in the *Photogram*, it might be worth while to give it a fair trial as a developer. In appearance it is not unlike hydroquinone, and is very soluble in water, alcohol, and ether. In constitution it is isomeric with hydroquinone and resorcin, being the 1,2, or ortho-dioxybenzene. It is said to possess the following advantages as a developer: (1) Pyrocatechin gives the negatives the delicacy of pyrogallie acid. (2) The solution only alters very slowly on exposure to air, its permanency being superior to that of hydroquinone, eikonogen, etc. (3) The color of the negative is very favorable to printing, which

proceeds more rapidly than with other developers. It gives brilliant prints without any hardness. (4) The developer does not fog the plates, nor does it act on the fingers. (5) Its actual price is equal to, if not less than, that of the products actually employed as developers, the same bath being capable of developing a considerable number of plates.

The following are the principal formulas:

Solution A.

Water.....	1	oz.
Sodium sulphite.....	20	gr.
Pyrocatechin.....	10	"

Solution B.

Water.....	1	oz.
Potassium carbonate.....	100	gr.

For use in ordinary rapid exposures in a good light take one part A, one part B, one part water. For very under-exposed plates take one part A and two parts B. For plates that have had a timed exposure the following one solution developer is recommended:

Water.....	2	oz.
Sodium sulphite.....	25	gr.
Sodium carbonate.....	50	"
Pyrocatechin.....	10	"

To bring out contrasts a 2 per cent. solution of boric acid is recommended instead of bromide.

COLORS BROMIDES.—The *Bulletin de la Société Française de Photographie* gives the following formulae, which are said to produce prints of all colors. The prints are lightly developed by means of eikonogen, fixed, washed, and placed in a solution of

	Parts.
Nitrate of lead.....	4
Red prussiate of potash.....	6
Water.....	100

which bleaches the image. It may then be toned as follows:

	Parts.
Brown.—Schlippe's salt.....	10
Ammonia.....	5
Water.....	150
Yellow.—Neutral chromate of potash.....	4
Water.....	100
Green.—Perchloride of iron.....	1
Water.....	10
Red.—Chloride of copper.....	1
Water.....	10
Nickel green.—Chloride of nickel.....	1
Water.....	10
Orange.—Bichloride of mercury.....	3
Iodide of potassium.....	4½
Water.....	10

—Photographic Beacon.

BELITZSKY'S REDUCER.—

Potassium ferric oxalate.....	150 grains.
Sodium sulphate.....	120 "
Water.....	5 ounces.

Dissolve and add

Oxalic acid.....	10 grains.
------------------	------------

Shake until the solution turns green, then pour off the clear solution and dissolve and add

Hypo.....	100 grains.
Water.....	5 ounces.

This reducer can be used immediately after fixing, or after the negative has been dried. It keeps well, and may be used

over and over until it turns yellow.—*American Journal of Photography.*

Photographic Silver Residues.

I have often wondered what my brother chemists, those who dabble in photography, do with their residues. Do they allow them to run waste down the sink? Surely not.

No doubt the depreciation of silver, to the extent almost of 50 per cent., has made it for the ordinary amateur and professional scarcely worth the while to save residues, but to the chemist this should not apply. In our case there is no necessity to allow any part of the metal to filter through the hands of the "refiner."

Well, what would you do with them? The answer is simply a statement of fact, that for some years the writer has seldom had occasion to buy argent nit.; that caustic points and sticks of silver nitrate and potassium are not very difficult to make, and that a well-known and saleable specialty such as "marking ink" will absorb the greater part of the supply and afford a profitable channel for its disposal.

My method may be open to objection, as, perhaps, more extravagant than need be; but to avoid several operations I prefer to "fix out" everything containing silver bromide or chloride. Waste printing-out paper and prints, films, dry-plates, and the like, are all fixed in old but not exhausted hypo baths, rinsed in water, rinsings and bath then being emptied into a tub which is devoted to residues.

The precipitations of a 20-gallon tubful of old fixing baths is an easy, but rather malodorous business. Drop in a lot of scrap sheet zinc, which will cause a precipitate of metallic silver to fall; this must be collected on a linen filter, washed and dried. There will be a large amount of sulphur present, which is to be driven off by heat, the remainder being dissolved in nitric acid, or reduced in a crucible with borax. As a rule, it will be sufficient to dissolve the residue in nitric acid, dilute, filter (any gold present will remain as a grayish powder, and should be saved), evaporate and crystallize; dissolve once more, evaporate and recrystallize.

Or, without further preamble, convert the solution of silver nitrate into oxalate by precipitation with oxalate of potash, and we get a salt very suitable for making a really good permanent ink. Other uses will, no doubt, be found for the salt; the main point is, throw nothing away.

Toning baths are not in themselves much worth the saving; unless large quantities are used they may, as a rule, be merely turned into the residue tub. The gray powder filtered out as above, when any quantity has accumulated, should be, after washing, dissolved in nitro-muriatic acids, and converted once more into gold chloride.

In place of the zinc may be used, as more convenient, sulphurated potash.

THE ALE AND STOUT

OF

JOHN LABATT

LONDON

ARE PURE AND WHOLESOME

Recommended by testimonials
of Four Eminent Chemists.
TEN GOLD, SILVER and
BRONZE MEDALS.
HIGHEST AWARDS on this
Continent wherever exhibited.

MONTREAL—P. L. N. Beaudry, 127 De-
Lorimier Avenue.

TORONTO—J. Good & Co., Yonge Street.
ST. JOHN, N.B.—F. Smith, 24 Water Street



Royal Oil Co.

Toronto

Offer the following special lines
to the Drug Trade:

XX Petrolatum, in 50 lb. tubs, 7c. per lb.

" in 25 lb. tubs, 7½c. "

White Petrolatum, in 25 lb. and 50 lb. tubs
18c. per lb.

Benzine, 5 gal. tins, 20c. per gal.

Extra Gasoline, 5 gal. tins, 25c. per gal.

Sewing Machine Oil, 5 gal. tins, 60c. per gal.

Sewing Machine Oil, in 2 oz. bottles, \$5.00
per gross.

Royal Hoof Ointment, in 1 lb. tins, 24 tins
to case, \$3.50 per case.

Raw Linseed Oil, by the barrel, 55c. per
gal. delivered.

Raw Linseed Oil, in 5 gal. tins, 58c. per
gal. f.o.b. Toronto.

Boiled Linseed Oil, by the barrel, 58c. per
gal. delivered.

Boiled Linseed Oil, in 5 gal. tins, 61c. per
gal. f.o.b. Toronto.

Pure Neatsfoot Oil, in 5 gal. tins, 90c. per
gal.

Olive Oil, Union Salad, 5 gal. tins, 90c.
per gal.

Olive Oil, for table, Pure Italian, \$2.00
per gal.

Sperm Oil, pure, in 5 gal. tins, \$2 per gal.

Castor Oil, Calcutta, cases, 6½c. per lb.

" " 5 gal. tins, 7c. per lb.

" French, 5 gal. tins, 7½c. per lb.

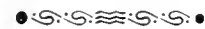
Sperm Candles, 36 lbs. to case, 10½c. per lb.

Paraffine " " " 11½c. per lb.

Spirits Turpentine, pure, by the barrel, 46c.
per gal. delivered.

Spirits Turpentine, pure, in 5 gallon tins,
49c. per gal. f.o.b. Toronto.

Wood Jacket, 5 gal. cans, 50c. each.



Terms: 30 days. No Discount.

**WE GUARANTEE PURE GOODS
WE GUARANTEE PROMPT SHIPMENT
WE GUARANTEE PERFECT SATIS-
FACTION**

We are the largest producers and manufac-
turers of Canadian oil, and the largest im-
porters of American oil in Canada.

Your orders will be appreciated.



ROYAL OIL COMPANY

Toronto

GEO. ANDERSON

Manager

The paper upon which
this is printed was
made by

The E. B. EDDY Co.,
Limited, of HULL,

Who exclusively
supply
this newspaper.

Are You Satisfied?

DOES YOUR ADVERTISING PAY AS WELL AS IT OUGHT TO PAY?

You are spending a certain amount of money for advertising, and the space you use costs you just as much whether you fill it with effective matter or with something that is without force.

No business man in America can attend to his own advertising as well as I can attend to it for him, with his assistance and under his direction. When he employs me he is getting the benefit of another brain. It may not be as good as his, but it is trained in one particular direction. It is the brain of a specialist, of a man who has made advertising his life-study and his life-work. If he uses it, he will at least get new ideas; he will get thoughts that come from the outside of his business—from the standpoint of the buying public.

I am thoroughly in earnest about my business. I believe I can be of profitable service to any business man. If he will co-operate with me, I am sure that I can reduce his advertising expenditure more than enough to pay for my services, and at the same time produce better results. That is what I believe. That is what I have done for others.

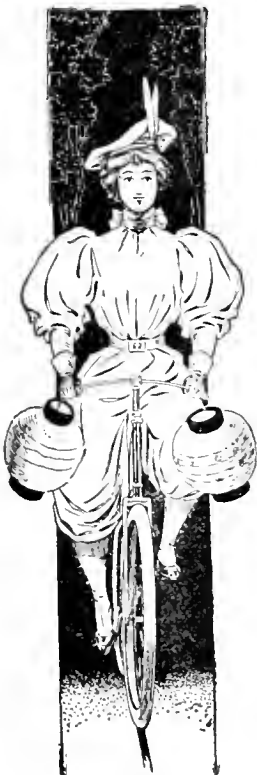
The following list gives an approximate idea of my charges:

Letter of criticism and advice to retailers, \$10; letter of advice in other lines, \$25; trade paper ads, \$5 each and more; magazine ads, \$5 to \$50 each; illustrated retail ads, 15 for \$20.

Write to me about anything in advertising.

Charles Austin Bates,

Plans, Advice, Writing, and Illustrating for Advertisers,
VANDERBILT BUILDING, NEW YORK CITY.



... MOST WONDERFUL DISCOVERY OF THE AGE. ...

Excelsior Egg Preserver

It is no pickle: you simply treat the eggs with **Preserver**. After treating lay them away in a cool, dry place, in a box. The idea is to lay down a supply when eggs are cheap.

The **Preserver**, used according to our directions, will stop all decay of the animal matter of the shell, and, at the same time, seals every pore of the shell, which will keep the yolk in the centre of egg, where it is always found in fresh eggs, as the air cannot escape, nor can it work in, and we guarantee the egg to be as fresh in one year as the day it was treated. It costs less than one cent per dozen to lay them down, and a child can do it: it requires no skill. **Preserver** will be appreciated by all your customers.



FOR SALE BY ALL WHOLESALE DRUGGISTS.

Manufactured by

Canadian Depot . . .

P.O. Box 93,
HAMILTON, ONT.

EXCELSIOR MANUFACTURING CO.,

6344 CHAMPLAIN AVE.,

CHICAGO, ILL.

FACT

DEAD

SURE

THE POOREST MAN ON EARTH

CAN BE CURED OF

THE TOBACCO HABIT

BY OUR METHOD

We offer by mail a Remedy that will FREE EVERY SLAVE to Tobacco in ten days

Read the strongest endorsement ever given any remedy, and if you are not fully satisfied write for leaflet containing over 6,000 testimonials.

UNITED STATES HEALTH REPORTS (Official Endorsement, June 19, 1895, page 10.)

"In the interest of the masses for whom these Reports are compiled, the United States Health Reports have examined and investigated many preparations having for their object the cure of the tobacco habit, but among them all we have no hesitancy in giving the editorial and official endorsement of these Reports to the remedy known as **Uncle Sam's Tobacco Cure**, manufactured by the Keystone Remedy Co., at 217 LaSalle Street, Chicago. We have demonstrated by personal tests that this antidote positively destroys the taste and desire for tobacco in ten days, leaving the system in a perfectly healthy condition, and the person using the same forever free from the habit.

"In the light of our examinations and tests of **Uncle Sam's Tobacco Cure**, we are but performing a duty we owe the public when we endorse the same, and stamp it as the crowning achievement of the nineteenth century in the way of destroying a habit as disgusting as it is common (for only \$1.00), hence we earnestly advise you to write them for particulars."

For Sale by all Wholesale Druggists

A more than sufficient quantity is added to the tubful of liquid, and when the precipitate has formed and settled decant as much of the clear fluid as possible, and add more baths, until the mass of sulphide is worth the further treatment; when this happens scoop it out on to a linen filter, thoroughly drain and dry, and proceed as before.—*D.D., in British and Colonial Druggist.*

Are They Roentgen Rays?

Years ago, when the writer dabbled somewhat in amateur photography, he observed that, when his plate holders containing dry plates were exposed to direct sunlight, fogging was the result. It was then supposed that the plate-holders must have been defective; but since the discovery of the new rays by Roentgen, it occurred to the writer that the effects observed may have been due to these rays in the sunlight; so it was determined to subject the matter to the test of experiment. Accordingly, the plate-holder of a Corona camera, whose slides are of hard rubber, and another holder, having a pasteboard slide, were taken for experiments. In one experiment, two copper pennies and a small brass key were fastened to the surface of one of the slides, beneath which was placed an ordinary dry plate, one of Seeds. The margin of the plate-holder was covered with black paper, to guard against the possible fogging by leakage of light, and the holder was exposed for two hours to direct sunlight. On development, there was a very distinct shadow picture of the pennies and key.

Further experiments showed that similar shadow pictures could be taken through two thicknesses of ordinary pasteboard, and through sheets of vulcanized rubber, 1 millimetre in thickness, but opaque to the eye. This was accomplished by means of gas and kerosene light, as well as by sunlight, though, of course, in these cases longer exposure was required than when direct sunlight was employed. Various experiments, however, showed that the rays did not agree in their properties with the "X" rays of Roentgen. They can be reflected and refracted, and they penetrated only with the greatest difficulty a sheet of black paper. They are probably only the ordinary actinic rays, which have a power, heretofore unsuspected, of penetrating certain substances opaque to the visual rays. The facts, however, are of great practical importance to manufacturers and dealers in dry plates, and to those engaged in the photographic art generally.—*Edson S. Bastin, in American Journal of Pharmacy, March, 1896.*

Gallobromol, which was recommended some few years ago by Lapen in neurasthenic conditions in place of the alkaline bromides, is now recommended by Stein in nervous affections of a spastic character as a sedative.

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the special consideration of the Business Notices.

Have you placed your order for Wilson's Fly Pads?

JAMES W. TUFTS, Boston, Mass., has issued an edition of 125,000 copies of an advance catalogue of soda water fountains, etc. Druggists contemplating the purchase of a fountain can obtain a complete catalogue containing some very elegant designs by dropping a card to the above address.

We are requested to state that the Woodward Medicine Co., whose name appears in the friendly list, represents Celery King only. Another firm of somewhat similar name are not as yet among our friends. Members of the society would do well to distinguish between these two firms, in spite of any representation to the contrary.

MESSRS. POWELL & DAVIS Co., the manufacturers of the well-known Davis Fly Felts, report having booked orders for an immense number of their special offer sets—3 boxes Fly Felts and display box at reduced price of \$6.75, as per their advertisement. It will be well for druggists to send in their orders for special offer at once, as Powell & Davis will discontinue shipping out these special offers on the 20th of April.

In the interest of antiseptic purity and suffering humanity a good tooth brush and Borine applied night and morning afford a greater safeguard against many diseases than many people are aware. In infancy, the painful dentition dependent upon commencing teething with fretfulness and dribbling, or "drooling," a solution of Borine will prove to be soothing and refreshing. In gingivitis or inflamed gums, as a detergent, hardness, and preservative, Borine is of the greatest benefit. Borine will not harm the denture or injure the most delicate epithelium. It will remove tartar and all acid accumulations by dissolving, not by bleaching. As it possesses no toxic or irritating qualities, Borine can be used as an internal antiseptic in the treatment of gastro-intestinal troubles, "summer diarrhoea" of children, in doses of ten to twenty drops in a wine glass of water.

Free.

The Powell & Davis Co., Chatham, offer free till May 1st the above shown display, but containing twenty Davis' Fly Felts Packages, free to every druggist in Canada. See advertisement page 80b.

Sell Only the Best.

Remember that your customers are discriminative, that they appreciate a good article and resent the purchase of a poor one. Nothing is more annoying than to get a sheet of imperfect, sticky fly paper, one that has leaked out at the edges, or one where the sticky has soaked through the paper, or perhaps one that cannot be opened without tearing the paper; flies are preferable.

Don't sell your customers any such if you value their good will; you run no risk selling them tanglefoot.

Photography.

Those druggists who handle photographic supplies, either for sale to amateurs or professional photographers, or for their own use, are directed to the advertisement of F. A. Mulholland & Co., on second page of cover in this issue. For some time many photo-supply dealers had the impression that to sell these goods to the druggist was antagonizing the regular photographer, but it has been shown that, instead of doing this, it has materially increased the interest taken in photography, and proved a help to the "regular," who can now obtain small quantities of goods, when not justified in sending a large order direct to the dealer.

Difference in the Action of Pepsin and Pancreatin in Digestion.

Dr. Gombault (*Gaz. des Hop.*) says that extensive experience has proven that pepsin is indicated only in a very small number of cases of indigestion. If there be an insufficiency of ptyalin in the saliva starchy substances will reach the stomach without being digested; pepsin will have no effect on it, while pancreatin completely saccharifies it.

There is, of course, no advantage in giving pepsin in this class of cases. Much better employ pancreatic diastase now that it has been so skilfully prepared by Frederick Stearns & Co., of Windsor, Ont., and offered in the form of a delicious cordial, called essence of diastase Stearns, and in pilloids called diastose Stearns.

Wine of Cod Liver Oil.

A. B. Griffiths, Ph.D., F.R.S. (Edin.), F.C.S., says: "I have made an examination of Stearns' Wine of Cod Liver Oil with Peptonate of Iron. It is an excellent preparation, and contains the leucomaines, alkaloids, or active principles of cod-liver oil with peptonate of iron. The alkaloids of cod liver oil were first isolated by my friend, Professor Armand Gautier, of Paris; and they are not the products of decomposition, as some writers (who know very little about the animal alkaloids) assert, but occur in the fresh liver of the cod, being produced by living cells—in other words, they are true leucomaines. There is no doubt that the alka-

loids of cod-liver oil are the active principles, as the percentages of iodine and bromine present in the oil are extremely small, and some oils, especially those that are light-colored, contain none of these elements. At most there is but 0.000322 per cent. of iodine present, a quantity which is too small to be of practical benefit. The same may be said of the bromine."

Responsibility for Untoward Action.

With the characteristic pithy and trenchant utterance which "hews to the line, letting the chips fall where they may," and which marks all of his sayings, Dr. Frank Kraft, 57 Bell avenue, Cleveland, Ohio, Professor of Materia Medica, Cleveland Medical College, writes: "The professional market seems to be filled with substitutes for the original and ever-favorite antikamnia; all warranted to do what the antikamnia has succeeded, by hard work and expenditure of much money, in establishing; all of these nefarious products masking under some name partly modelled after the antikamnia pattern, beginning with an A, and warranted to still pain, etc., etc., are base imitations of antikamnia. They may be, and perhaps are, coal-tar products, but they cannot take the place of antikamnia; this was the first product, and made a success because of its merit; hence the host of imitators. Insist upon getting the original antikamnia, and caution your druggist that if he practises any substitution you will not only decline further to deal with him, but hold him personally responsible for any untoward action of his substituted remedy."—*Medical Bulletin, Philadelphia.*

Cod Liver Oil Report.

From JOH. RYE HOLMBØE, Tromsø, Norway.

February 25th, 1896.

Summary of official statistics up till February 24th:

	Fish caught (thousands)			Cod-liver oil (Hectl.)		
	1894	1895	1896	1894	1895	1896
Lofoten.	4700	2800	1000	1904	845	270
Winter fish	5554	2360	1317	3574	1179	540
Total	9554	5160	2317	5568	2025	816

Winter fisheries at Vesteraalen and Senjen extremely poor. Fish scarce, weather stormy.

Lofoten: Last report: weather fair, but catch poor.

Southern districts: No fishing commenced.

Condition: No improvement.

Quotation cannot be given. My last price for best non-freezing has been 160 sh. If this week does not show a decided improvement at Lofoten, price will exceed 200 sh.

Firm offers wired on demand.

March 3rd, 1896.

Summary of official statistics up till March 2nd:

	Fish caught (thousands)			Cod-liver oil (Hectl.)		
	1894	1895	1896	1894	1895	1896
Lofoten	5700	5000	1200	2713	1064	400
Winter fish	5871	3683	1623	3613	1738	661
Total	11571	8683	2823	6316	3402	1061

Southern districts very poor. Livers getting leaner everywhere.

Lofoten and winter fisheries: Nothing done last week. Weather now fair, and we may look for a better result of this week.

Price gone up above 200 sh. as anticipated. 210 marks freely offered from Hamburg. I am now booking small orders at 205 sh.

March 10th, 1896.

Summary of official statistics up till March 9th:

	Fish caught (thousands)				Cod-liver oil (Hectl.)			
	Average	1894	1895	1896	Average	1894	1895	1896
Lofoten	1887-93	1894	1895	1896	1887-93	1894	1895	1896
Other districts	6000	1200	11500	2600	3632	4400	3713	994
Total	—	5871	4310	1883	—	8003	1725	720
	—	1571	15810	1483	—	8063	1540	1630

The figures are now getting alarming. Production of cod-liver oil up till date amounts to one-fifth of 1894 and one-quarter of 1895. Weather has been fair last week, but fish appear to be scarce everywhere and livers very lean.

Market quite excited. No price can be quoted. I doubt there would be sellers to-day at 220 sh. I am prepared to make firm offers by wire binding twenty-four hours. Please state quantity desired when wiring for offers.

PARTIES DESIRING A DRUG BUSINESS IN

Southern California will do well to correspond with T. W. Lorn, Druggists Broker, 131 North Union Ave., Los Angeles, California. References: All Wholesale Druggists, Citizens Bank, Broadway Bank, Los Angeles, California, and the California Board of Pharmacy.

SODA WATER FOUNTAIN FOR SALE. TUFT'S

outfit, complete and in good order. One counter apparatus with two draft tubes. Four mineral water tubes and twelve syringes; about eight feet high, and one of the handsomest in Canada. Copper generator and two copper cylinders. Ice cream cabinet, and everything complete. Very cheap. Apply R. FERRAH, Galt.

"Surf" Sea Salt

is a new 150. pkg., put up in 1 doz. 5 lb. pkgs., per case. Price, \$12. per gross (12 cases) \$11. Wholesale houses sell it. Pkg. is a new patent cardboard one, and handsomely printed. Sales of first week in Toronto 120 cases. The salt is clear as glass and of a size that dissolves readily. It never gets damp, and contains no dirt or grit. Analyze 99.98 per cent. pure salt. You can work up a good salt trade if you try. Why not do it?

TORONTO SALT WORKS, Toronto, Importers.

WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc., will be inserted once free of charge. Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.

SITUATIONS WANTED.

SITUATION WANTED AS DRUGGIST'S ASSISTANT, 3½ years' experience, junior examinations, good dispenser, best of references, salary moderate. Address, D. E. REID, West Huntingdon, Ont.

DRUGGIST, JUNIOR GRADUATE O.C.P., FOUR years' experience, best references. Address, Box 54, Elora.

FOR ALE.

DRUG BUSINESS IN MANITOBA FOR SALE. A profitable drug and stationery business doing about five thousand a year, in lively town, twelve hundred population, stock twenty-five hundred. Terms \$1,000 cash; balance six and twelve months secured. Dispensing done for three physicians. Prices have never been cut. bona-fide purchaser may make application to the undersigned, but no communications will be considered unless \$1,000 cash is forthcoming. Address, T. W. MARTIN, BOLE & WYNNE CO., Wholesale Druggists, Winnipeg.

DRUG BUSINESS FOR SALE IN A PROGRESSIVE town, good location and stand. For particulars address, "Chemist," care of James A. Kennedy & Co., London, Ont.

A NICE CLEAN STOCK OF DRUGS AND Stationery. Invoice about \$1,000. Good opening for beginner. One of the best towns in the North-West Territories. Terms easy. Address, Box 271, Whitewood, Assa., N.W.T.

BUSINESS WANTED.

DRUG BUSINESS WANTED IN LIVE TOWN in Ontario. All correspondence strictly confidential. Address with particulars, A. F. GLEDHILL, Box 273, Petrolia, Ont.

We are offering in lots to
Suit Customers, Barrels,
Kegs, or Parcels . . .

Blue Vitriol Xtal,
Blue Vitriol Granulated,
Powdered Hellebore,
Carbonate of Copper,
Insect Powder,
Copperas,
Moth Camphor — Balls,
Blocks, or Powder,
Paris Green,
Sulphur Sublimed,
Sulphur Roll,
Alum Xtal,
Alum Powdered.

SEND US YOUR ORDERS.

ASK FOR QUOTATIONS.

JAMES A. KENNEDY & CO.,

WHOLESALE DRUGGISTS,

342 Richmond St.,

LONDON

Ave Maria

The latest Aristocratic, Fascinating Perfume is creating a furore in the hearts of American Society.

Up-to-date Ideas in Perfumes Pay

One Oz. Glass Str. Bottle, 2 in Box, \$4.80

" " Screw Top " 1 " " 5.00

Two " " " " 1 " " 8.00

SEND IN YOUR ORDER. EASILY SOLD.
SATISFACTION GUARANTEED.

NOT SOLD IN BULK

Send for Catalogue

Seely Manufacturing Co.

DETROIT, MICH.

WINDOR ONT.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to April 10th, 1896.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal.....	\$4 37	\$4 65
Methyl.....	1 90	2 00
ALLSPICE, lb.....	13	15
Powdered, lb.....	15	17
ALON OZ.....	40	45
ANODYNE, Hoffman's bot., lbs.....	50	55
ARROWROOT, Bermuda, lb.....	50	55
St. Vincent, lb.....	15	18
BAL AM, Fir, lb.....	40	45
Copaiba, lb.....	65	75
Peru, lb.....	3 75	4 00
Tolu, can or less, lb.....	95	1 00
BARK, Barberry, lb.....	22	25
Bayberry, lb.....	15	18
Buckthorn, lb.....	15	17
Canella, lb.....	15	17
Cascara, Sagrada.....	25	30
Cascarilla, select, lb.....	18	20
Cassia, in mats, lb.....	18	20
Cinchona, red, lb.....	60	65
Powdered, lb.....	65	70
Yellow, lb.....	35	40
Pale, lb.....	40	45
Elm, selected, lb.....	18	20
Ground, lb.....	17	20
Powdered, lb.....	20	28
Hemlock, crushed, lb.....	18	20
Oak, white, crushed lb.....	15	17
Orange peel, bitter, lb.....	15	16
Prickly ash, lb.....	35	40
Sassafras, lb.....	15	16
Soap (quillaya), lb.....	13	15
Wild cherry, lb.....	13	15
BEANS, Calabar, lb.....	45	50
Tonka, lb.....	1 50	2 75
Vanilla, lb.....	8 00	8 50
BERRIES, Cubeb, lb.....	30	35
powdered, lb.....	35	40
Juniper, lb.....	7	10
Ground, lb.....	12	14
Prickly ash, lb.....	40	45
BUDS, Balm of Gilead, lb.....	55	60
Cassia, lb.....	25	30
BUTTER, Cacao, lb.....	75	80
CAMPHOR, lb.....	85	90
CANTHARIDES, Russian, lb.....	1 40	1 50
Powdered, lb.....	1 50	1 60
CAPSICUM, lb.....	25	30

Powdered, lb.....	\$ 30	35
CARBON, Bisulphide, lb.....	17	18
CARMINE, No. 40, oz.....	40	50
CASFOR, Fibre, lb.....	20 00	26 00
CHALK, French, powdered, lb.....	10	12
Precip., see Calcium, lb.....	10	12
Prepared, lb.....	5	6
CHARCOAL, Animal, powd., lb.....	4	5
Willow, powdered, lb.....	20	25
CLOVE, lb.....	16	17
Powdered, lb.....	17	18
COCHINEAL, S.G., lb.....	40	45
COLLODION, lb.....	75	80
Cantharidal, lb.....	2 50	2 75
CONFECTION, Senna, lb.....	40	45
Creosote, Wood, lb.....	2 00	2 50
CUTTLEFISH BONE, lb.....	25	30
DEXTRINE, lb.....	10	12
DOVER'S POWDER, lb.....	1 50	1 60
ERGOT, Spanish, lb.....	75	80
Powdered, lb.....	90	1 00
Ergotin, Keith's, oz.....	2 00	2 10
EXTRACT, Logwood, bulk, lb.....	13	14
Pounds, lb.....	14	17
FLOWERS, Arnica, lb.....	15	20
Calendula, lb.....	55	60
Chamomile, Roman, lb.....	25	30
German, lb.....	40	45
Elder, lb.....	20	22
Lavender, lb.....	12	15
Rose, red, French, lb.....	1 60	2 00
Rosemary, lb.....	25	30
Saffron, American, lb.....	65	70
Spanish, Val'a, oz.....	1 00	1 25
GELATINE, Cooper's, lb.....	75	80
French, white, lb.....	35	40
GLYCERINE, lb.....	22	25
GUARANA, lb.....	200	2 25
Powdered, lb.....	2 25	2 50
GUM ALOES, Cape, lb.....	18	20
Barbadoes, lb.....	30	50
Socotrine, lb.....	65	70
Asafetida, lb.....	40	45
Arabic, 1st, lb.....	65	70
Powdered, lb.....	75	85
Sifted sorts, lb.....	40	45
Sorts, lb.....	25	30
Benzoin, lb.....	50	1 00
Catechu, Black, lb.....	9	20
Gamboge, powdered, lb.....	1 20	1 25
Guaiaac, lb.....	50	1 00
Powdered, lb.....	50	95
Kino, true, lb.....	2 00	2 25

Myrrh, lb.....	\$ 45	\$ 48
Powdered, lb.....	55	60
Opium, lb.....	3 80	4 00
Powdered, lb.....	5 50	5 75
Scammony, pure Resin, lb.....	12 80	13 00
Shellac, lb.....	40	45
Bleached, lb.....	45	50
Spruce, true, lb.....	30	35
Tragacanth, flake, 1st, lb.....	75	80
Powdered, lb.....	1 00	1 10
Sorts, lb.....	45	65
Thus, lb.....	8	10
HERB, Althea, lb.....	27	30
Bitterwort, lb.....	30	40
Burdock, lb.....	16	18
Boneset, ozs, lb.....	15	17
Catnip, ozs, lb.....	17	20
Chiretta, lb.....	25	30
Coltsfoot, lb.....	20	38
Feverfew, ozs, lb.....	53	55
Grindelia robusta, lb.....	45	50
Horehound, ozs, lb.....	18	20
Jaborandi, lb.....	45	50
Lemon Balm, lb.....	38	40
Liverwort, German, lb.....	38	40
Lobelia, ozs, lb.....	15	20
Motherwort, ozs, lb.....	20	22
Mullein, German, lb.....	17	20
Pennyroyal, ozs, lb.....	18	20
Peppermint, ozs, lb.....	21	22
Rue, ozs, lb.....	30	35
Sage, ozs, lb.....	18	20
Spearmint, lb.....	21	25
Thyme, ozs, lb.....	18	20
Tansy, ozs, lb.....	15	18
Wormwood, ozs, lb.....	20	22
Verba Santa, lb.....	38	44
HONEY, lb.....	13	15
Hors, fresh, lb.....	20	25
INDIGO, Madras, lb.....	75	80
INSECT POWDER, lb.....	30	32
ISINGLASS, Brazil, lb.....	2 00	2 10
Russian, true, lb.....	6 00	6 50
LEAF, Aconite, lb.....	25	30
Bay, lb.....	18	20
Belladonna, lb.....	25	30
Buchu, long, lb.....	50	55
Short, lb.....	25	27
Coca, lb.....	35	40
Digitalis, lb.....	15	20
Eucalyptus, lb.....	18	20
Hyoscyamus.....	20	25
Matico, lb.....	70	75

Senna, Alexandria, lb.	\$ 25	\$ 30	Queen of the Meadow, lb.	\$ 18	\$ 20	Valerianate, oz.	\$ 55	\$ 60
Tinnevely, lb.	15	25	Khatany, lb.	20	30	AMYL, Nitrite, oz.	16	18
Stramonium, lb.	20	25	Rhubarb, lb.	75	2 50	ANTINERVIN, oz.	85	00
Uva Ursi, lb.	15	18	Sarsaparilla, Hond, lb.	40	45	ANTIKAMNIA,	1 30	1 35
LEECHES, Swedish, doz.	1 00	1 10	Cut, lb.	50	55	ANTHYRIN, oz.	1 10	1 20
LICORICE, Solazzi,	45	50	Senega, lb.	55	05	ARISTOL, oz.	1 85	2 00
Pignatelli,	35	40	Squill, lb.	13	15	ARSENIC, Donovan's sol., lb.	25	30
Grasso,	30	35	Stillingia, lb.	22	25	Fowler's sol., lb.	10	13
Y & S—Sticks, 6 to 1 lb., per lb.	27	30	Powdered, lb.	25	27	Iodide, oz.	50	55
" Purity, 100 sticks in box	75	75	Unicorn, lb.	38	40	White, lb.	6	7
" Purity, 200 sticks in box	1 50	1 50	Valerian, English, lb. true,	20	25	ATROPINE, Sulp. in $\frac{1}{8}$ ozs. 80c.,	6 00	6 25
" Acme Pellets, 5 lb. tins	2 00	2 00	Virginia, Snake, lb.	40	45	oz.	35	40
" Lozenges, 5 lb. tins,	2 00	2 00	Yellow Dock, lb.	15	18	BISMUTH, Ammonia-citrate, oz.	50	55
" Tar, Licorice, and Tolu,			RUM, Bay, gal.	2 50	2 75	Iodide, oz.	20	25
5 lb. tins,	2 00	2 00	Essence, lb.	3 00	3 25	Salicylate, oz.	1 80	2 00
LUPULIN, oz.	30	35	SACCHARIN, oz.	1 25	1 50	Subnitrate, lb.	1 50	1 60
LYCOPodium, lb.	70	80	SEED, Anise, Italian, sifted, lb.	13	15	BORAX, lb.	7	8
MACE, lb.	1 20	1 25	Star, lb.	35	40	Powdered, lb.	8	9
MANNA, lb.	1 60	1 75	Burdock, lb.	30	35	BROMINE, oz.	8	13
Moss, Iceland, lb.	9	10	Canary, bag or less, lb.	5	6	CADMIUM, Bromide, oz.	20	25
Irish, lb.	12	13	Caraway, lb.	10	13	Iodide, oz.	45	50
MUSK, Tonquin, oz.	40	50	Cardamom, lb.	1 25	1 50	CAFFEINE, oz.	55	60
NUTGALLS, lb.	21	25	Celery,	25	30	Citrate, oz.	55	60
Powdered, lb.	25	30	Colchicum,	50	60	CALCIUM, Hypophosphite, lb.	1 50	1 60
NUTMEGS, lb.	1 00	1 10	Coriander, lb.	10	12	Iodide, oz.	95	1 00
NUX VOMICA, lb.	10	12	Cumin, lb.	15	20	Phosphate, precip., lb.	35	38
Powdered, lb.	25	27	Fennel, lb.	15	17	Sulphide, oz.	5	6
OAKUM, lb.	12	15	Fennugreek, powdered, lb.	7	9	CERIUM, Oxalate, oz.	10	12
ONIMENT, Merc., lb. $\frac{1}{2}$ and $\frac{1}{2}$.	70	75	Flax, cleaned, lb.	3 $\frac{1}{2}$	4	CHINCHIDINE, lb.	15	18
Citrine, lb.	45	50	Ground, lb.	4	5	CHLORAL, Hydrate, lb.	1 25	1 30
PARALDEHYDE, oz.	20	22	Hemp, lb.	5	6	Croton, oz.	75	80
PETER, black, lb.	12	13	Mustard, white, lb.	11	12	CHLOROFORM, lb.	60	1 90
Powdered, lb.	15	16	Powdered, lb.	15	20	CINCHONINE, sulphate, oz.	25	30
PITCH, black, lb.	3	4	Pumpkin,	25	30	CINCHONIDINE, Sulph., oz.	15	20
Bergundy, true, lb.	10	12	Quince, lb.	65	70	COCAINE, Mur., oz.	5 50	6 50
PLASTER, Calcined, bbl. cash,	25	3 25	Rape, lb.	8	9	CODIOL, $\frac{1}{2}$ oz.	70	75
Adhesive, yd.	12	13	Strophanthus, oz.	50	55	COLLODION, lb.	65	70
Belladonna, lb.	65	70	Worm, lb.	22	25	COPPER, Sulph., (Blue Vitriol) lb.	6	7
Gallbanum Comp., lb.	80	85	SEDLITZ MIXTURE, lb.	25	30	Iodide, oz.	65	70
Lead, lb.	25	30	SOAP, Castile, Mottled, pure, lb.	10	12	COPTERAS, lb.	1	3
POPPY HEADS, per 100,	1 00	1 10	White, Conti's, lb.	15	16	DIURETIN, oz.	1 60	1 65
ROSEN, Common, lb.	2 $\frac{1}{2}$	3	Powdered, lb.	25	40	ETHER, Acetic, lb.	75	80
White, lb.	3 $\frac{1}{2}$	4	Green (Sapo Viridis), lb.	25	25	Sulphuric, lb.	40	50
RESORCIN, white, oz.	25	30	SFERMACETI, lb.	65	70	EXALGINE, oz.	1 00	1 10
ROCHELLE SALT, lb.	28	30	TURPENTINE, Chian, oz.	75	80	HYOSCYAMINE, Sulp., crystals, gr.	25	30
ROOT, Aconite, lb.	22	25	Venice, lb.	10	12	IODINE, lb.	4 75	5 50
Althea, cut, lb.	30	35	WAX, White, lb.	50	75	IODOFORM, lb.	6 00	7 00
Belladonna, lb.	25	30	Yellow,	40	45	IODOL,	1 40	1 50
Blood, lb.	15	16	WOOD, Guaiac, rasped,	5	6	IRON, by Hydrogen,	80	85
Bitter, lb.	27	30	Quassia chips, lb.	10	12	Carbonate, Precip., lb.	15	16
Blackberry, lb.	15	18	Red Saunders, ground, lb.	5	6	Sacch., lb.	30	35
Burdock, crushed, lb.	18	20	Santal, ground, lb.	5	6	Chloride, lb.	45	55
Calamus, sliced, white, lb.	20	25				Sol., lb.	13	16
Canada Snake, lb.	30	35				Citrate, U.S.P., lb.	90	1 00
Cobosh, black, lb.	15	20				And Ammon., lb.	70	75
Colchicum, lb.	40	45				And Quinine, lb.	1 50	3 00
Columbo, lb.	20	22				Quin. and Stry., oz.	18	30
Powdered, lb.	25	30				And Strychnine, oz.	13	15
Coltsfoot, lb.	38	40				Dialyzed, Solution, lb.	50	55
Comfrey, crushed, lb.	20	25				Ferrocyanide, lb.	55	60
Curcuma, powdered, lb.	13	14				Hypophosphites, oz.	25	30
Dandelion, lb.	15	18				Iodide, oz.	40	45
Elecampane, lb.	15	20				Syrup, lb.	40	45
Galangal, lb.	15	18				Lactate, oz.	5	6
Gelsemium, lb.	22	25				Pernitrate, solution, lb.	15	16
Gentian or Genitan, lb.	0	10				Phosphate scales, lb.	1 25	1 30
Ground, lb.	10	12				Sulphate, pure, lb.	7	9
Powdered, lb.	13	15				Exsiccated, lb.	8	10
Ginger, African, lb.	18	20				And Potass. Tartrate, lb.	80	85
Pos, lb.	20	22				And Ammon Tartrate, lb.	80	85
Jamaica, blebd, lb.	27	30				LEAD, Acetate, white, lb.	13	15
Pos, lb.	30	35				Carbonate, lb.	7	8
Ginseng, lb.	4 50	4 75				Iodide, oz.	35	40
Golden Seal, lb.	75	80				Red, lb.	7	9
Gold Thread, lb.	90	95				LIME, Chlorinated, bulk, lb.	4	5
Hellebore, white, powd., lb.	12	15				In packages, lb.	6	7
Indian Hemp,	18	20				LITHIUM, Bromide, oz.	30	35
Ipecac, lb.	1 75	2 00				Carbonate, oz.	30	35
Powdered, lb.	2 00	2 25				Citrate, oz.	25	30
Jalap, lb.	55	60				Iodide, oz.	50	55
Powdered, lb.	60	65				Salic ate, oz.	35	40
Kava Kava, lb.	40	90				MAGNESIUM, Calc., lb.	55	60
Licorice, lb.	12	15				Carbonate, lb.	18	20
Powdered, lb.	13	15				Citrate, gran., lb.	35	40
Mandrake, lb.	13	18				Sulph. (Epsom salt), lb.	1 $\frac{3}{4}$	3
Masterwort, lb.	16	40				MANGANESE, Black Oxide, lb.	5	7
Oris, Florentine, lb.	30	35				MENTHOL, oz.	55	66
Powdered, lb.	40	45				MERCURY, lb.	75	80
Pateira Brava, true, lb.	40	45				Ammon (White Precip.)	1 25	1 30
Pink, lb.	40	45				Chloride, Corrosive, lb.	85	90
Parsley, lb.	30	35				Calomel, lb.	1 00	1 10
Pleurisy, lb.	20	25				With Chalk, lb.	60	65
Poke, lb.	15	18						

March 16th, 1896.

Production of cod-liver oil up till
March 15th:

Year.	Lofoten.	Other distr.	Total.
1896	2090	1766	3856
95	6467	2242	8709
94	5360	3960	9320
93	12845		
92	5000	Average production at Lofoten up till middle of Mar.	
91	3700		
90	6880		
89	4203		
88	9089		
87	2822	2090 hl.	6263

Reports from the fishing grounds are anything but encouraging. At the outside districts fishing has been pretty fair lately, but the oil works situated there are small, and cannot nearly make up for the enormous deficiency at Lofoten. To-day 225 sh. is nominally quoted, but there are hardly sellers at that price.

If this week does not show a marked change at Lofoten, we may look for enormous prices.

March 23rd, 1896.

Production of cod-liver oil up till
March 23rd:

Year.	Lofoten.	Other distr.	Total.
1896	3968	2393	6361
95	9149	3037	12186
94	6770	5035	11805
93	15528		
92	6600	Average production at Lofoten up till March 23rd.	
91	8754		
90	12270		
89	5546		
88	13520		
87	8044	3968 hl.	9575

At Lofoten the fishing continues poor. Fish scarce, and the time is now passed when any improvement may be expected.

From Finmarken favorable prospects have been reported, but all the fishermen staying at Lofoten. Very little will be done at Finmarken till after Lent.

The market has been somewhat easier last week. Foreign importers have apparently filled their most urgent demands, and now await the final result of the Lofoten fishery—even at the risk of having to yield to still higher prices later on. Norwegian exporters seem to be quietly looking forward to the market resuming its former firmness, when the actual deficiency shall be generally known.

Kosotoxin, derived from kouso, is described by Leichtewring (*Apoth. Zeit.*) as a yellowish amorphous powder soluble in alcohol, ether, and chloroform. It is a powerful muscle poison, but with little influence on the central nervous system.

Magazines.

The first magazine article on Cuba appears in the *Peterson Magazine* for April. This article treats the subject of the Cuban Revolution with clearness and comprehension, giving not only an outline of the present campaign, but presenting a great deal of general information concerning the people of the brave little island, combined with personal experiences in Cuba of natives and visitors. The illustrations in this article were made especially for the *Peterson Magazine* in Cuba.

The readers of *The Youth's Companion* have a liberal allowance of the good things appropriate to the season in the Easter number just received. Each week's issue has of late made a surprising display of excellence, and the Easter number is good enough to satisfy the paper's readers for a whole month. The calendar promises, however, that there will be four other issues during April. Felix L. Oswald, M.D., a wide-awake physician who has long studied the tendency of the phenomenal growth of the population in cities, gives "Cities of the Future," a realistic picture of a twentieth century city, in the Easter number of *The Youth's Companion*. Doctor Oswald draws a fair conclusion in stating that the development of this country's population can be calculated as accurately as the drift of clouds and winds by our weather bureau. Myron B. Gibson and Mary E. Mitchell both contribute stories of exceptional quality. Timely and concise editorials, "Justice to Congress," "Belligerent Rights and Neutrality," "Gold Fields, Old and New," and "Current Topics," give the more thoughtful readers of *The Companion* a page of unusual value. Gen. Nelson A. Miles is announced to write an article on "How I Served My Apprenticeship as a Soldier" for the week following the Easter number.

Abraham Lincoln and Robert E. Lee are the subjects of two new and interesting articles in *The Peterson Magazine* for March. The Lincoln matter is contributed by Mr. Frank B. Carpenter, the painter of the celebrated picture, "The Proclamation of Emancipation." The nature of this series of articles and the "Short Life" of Robert E. Lee will be reminiscent, as well as biographical, for both writers were intimately associated with the men whose careers they chronicle. Numerous portraits accompany these articles, and the fact that they are of simultaneous publication in the one magazine render them of noteworthy interest.

For beautiful portraits of prominent people, *The Peterson Magazine* for March excels. "People Talked About," "Among the Players," and "The Musical World," are three departments especially attractive in this respect.

An article on American Art and the National Academy, with reproduction

from famous paintings by native artists, is a feature of *The Peterson Magazine* for March.

The March number of *The Delineator* is called the great spring number, and is especially valuable and interesting because of the early forecast it contains of spring and summer styles and materials for ladies, misses, and children. The first of a series of articles on current events of interest to women, by Mrs. Frederick Rhinclander Jones, appears in this number. Mrs. Oliver Bell Bunce contributes an instructive article on perfumes and other toilet preparations; Lucia Gilbert Runkle brings to the discussion of literature as a profession for women the authority of acknowledged celebrity as a writer. "Mam Julie," an amusing and pathetic dialect sketch of southern life, introduces a new writer to readers of this magazine. Other features include the second paper on the care of the teeth, Edna Witherspoon's tea-table chat, Sara Miller Kirby's kindergarten paper, etc.

Subscription price of *The Delineator*, \$1 per year, or 15 cents per single copy. The Delineator Publishing Co. of Toronto, Limited, Toronto, Ont., 33 Richmond street west.

"THE PLEASURES OF OUTDOOR LIFE."—Birds, insects, ferns, mosses, plants, flowers, stars, planets, etc., are all delightfully written about by the most talented writers in *The Observer*, Portland, Conn. This popular magazine has been greatly enlarged and improved, yet the price is only ten cents a single copy, one dollar a year, as heretofore. Young people, as well as old, will be interested in the attractive pages of this magazine. It is a valuable opening to the wonderland of outdoor life, which, strange to say, is unnoticed by the greater part of mankind.

CURRENT HISTORY.—In these days the events and policies of all nations are so interdependent and interlinked that, without a general knowledge of the world's recent history, it is impossible to have a fair appreciation of that of our own land; while, to estimate properly the events of to-day, we must keep in mind what has occurred in the recent past. Those who desire to keep in touch with the progress of the world in every department of human knowledge and affairs can easily do so if they have at hand *Current History*. Four times in each year this publication presents its readers with a remarkably accurate and interesting history of all important incidents in every part of the world. With the present number (4th quarter, 1895) six years of history are completed.

MISS ALCOTT'S LIFE STORY.—Louisa M. Alcott is said to reveal herself in a most interesting way in a number of letters (written to five little girls) which are to appear in the April *Ladies' Home Journal*. These letters were written during the busiest period of Miss Alcott's life, and present a pen picture of the

Iodide, Proto, oz.....	\$ 35	\$ 0
Bin., oz.....	25	30
Oxide, Red, lb.....	1 15	1 20
Pill (Blue Mass), lb.....	70	75
MILK SUGAR, powdered, lb.....	30	35
MORPHINE, Acetate, oz.....	1 65	1 70
Muriate, oz.....	1 65	1 70
Sulphate, oz.....	1 75	1 80
PEPSIN, Saccharated, oz.....	35	40
PHENACETINE, oz.....	40	42
PHLOCARPINE, Muriate, grain.....	35	38
PIPERIN, oz.....	1 00	1 10
PHOSPHORUS, lb.....	90	1 10
POFASSA, Caustic, white, lb.....	60	65
POFASSIUM, Acetate, lb.....	35	40
Bicarbonate, lb.....	15	17
Bichromate, lb.....	14	15
Bitrat (Cream Tart.), lb.....	20	30
Bromide, lb.....	65	70
Carbonate, lb.....	12	13
Chlorate, Eng., lb.....	18	20
Powdered, lb.....	20	22
Citrate, lb.....	70	75
Cyanide, lb.....	40	50
Hypophosphites, oz.....	10	12
Iodide, lb.....	4 00	4 10
Nitrate, gran., lb.....	8	10
Permanganate, lb.....	40	45
Prussiate, Red, lb.....	50	55
Yellow, lb.....	32	35
And Sod. Tartrate, lb.....	25	30
Sulphuret, lb.....	25	30
PROPYLAMINE, oz.....	35	46
QUININE, Sulph., bulk.....	35	38
Ozs., oz.....	38	42
QUINIDINE, Sulphate, ozs., oz.....	10	20
SALICIN, lb.....	75	4 00
SANTONIN, oz.....	20	22
SILVER, Nitrate, cryst, oz.....	90	1 00
Fused, oz.....	1 00	1 10
SODIUM, Acetate, lb.....	30	35
Bicarbonate, kgs., lb.....	2 75	3 00
Bromide, lb.....	65	70
Carbonate, lb.....	3	6
Hypophosphite, oz.....	10	12
Hyposulphite, lb.....	3	6

Iodide, oz.....	\$ 40	\$ 43
Salicylate, lb.....	1 75	1 80
Sulphate, lb.....	2	5
Sulphite, lb.....	8	10
SOMNAL, oz.....	85	00
SPIRIT NITRE, lb.....	35	65
STRONTIUM, Nitrate, lb.....	18	20
STRYCHNINE, crystals, oz.....	80	85
SULFONAL, oz.....	40	42
SULPHUR, Flowers of, lb.....	2½	4
Pure precipitated, lb.....	13	20
TARTAR EMETIC, lb.....	50	55
THYMOL (Thymic acid), oz.....	55	60
VERATRINE, oz.....	2 00	2 10
ZINC, Acetate, lb.....	70	75
Carbonate lb.....	25	30
Chloride, granular, oz.....	13	15
Iodide, oz.....	60	65
Oxide, lb.....	13	60
Sulphate, lb.....	9	11
Valerianate, oz.....	25	30

ESSENTIAL OILS.

OIL, Almond, bitter, oz.....	75	80
Sweet, lb.....	50	60
Amber, crude, lb.....	40	45
Rec't, lb.....	60	65
Anise, lb.....	3 00	3 25
Bay, oz.....	50	60
Bergamot, lb.....	3 75	4 00
Cade, lb.....	90	1 00
Cajuput, lb.....	1 00	1 70
Capiscum, oz.....	60	65
Caraway, lb.....	2 75	3 00
Cassia, lb.....	3 30	3 50
Cedar, lb.....	55	85
Cinnamon, Ceylon, oz.....	2 75	3 00
Citronelle, lb.....	80	85
Clove, lb.....	1 10	1 20
Copaiba, lb.....	1 75	2 00
Croton, lb.....	1 50	1 75
Cubeb, lb.....	2 50	3 00
Cumin, lb.....	5 50	6 00
Eucigeron, oz.....	20	25
Eucalyptus, lb.....	1 50	1 75
Fenne, lb.....	1 60	1 75

Geranium, oz.....	\$1 75	\$1 80
Rose, lb.....	3 20	3 50
Juniper berries (English), lb.....	4 50	5 00
Wood, lb.....	70	75
Lavender, Chiris. Fleur, lb.....	3 00	3 50
Garden, lb.....	1 50	1 75
Lemon, lb.....	1 75	1 80
Lemongrass, lb.....	1 50	1 60
Mustard, Essential, oz.....	60	65
Neroli, oz.....	4 25	4 50
Orange, lb.....	2 75	3 00
Sweet, lb.....	2 75	3 00
Origanum, lb.....	65	70
Patchouli, oz.....	80	85
Pennyroyal, lb.....	2 50	2 75
Peppermint, lb.....	3 00	3 25
Pimento, lb.....	2 60	2 75
Rhodium, oz.....	80	85
Rose, oz.....	7 50	11 00
Rosemary, lb.....	70	75
Rue, oz.....	25	30
Sandalwood, lb.....	5 50	7 50
Sassafras, lb.....	75	80
Savin, lb.....	1 60	1 75
Spearment, lb.....	3 75	4 00
Spruce, lb.....	65	70
Tansy, lb.....	4 25	4 50
Thyme, white, lb.....	1 80	1 90
Wintergreen, lb.....	2 75	3 00
Wormseed, lb.....	3 50	3 75
Wormwood, lb.....	4 25	4 50

FIXED OILS.

CASTOR, lb.....	8	10
COD LIVER, N.F., gal.....	2 00	2 10
Norwegian, gal.....	300	3 25
COLTONEED, gal.....	1 10	1 20
LARD, gal.....	90	1 00
LINSEED, boiled, gal.....	62	65
Raw, gal.....	60	62
NEALFOOT, gal.....	1 20	1 30
OLIVE, gal.....	1 20	1 25
Salad, gal.....	2 50	2 60
PALM, lb.....	12	13
SPERM, gal.....	1 35	1 40
TURPENTINE, gal.....	60	65

author drawn by her own master hand. In these she talks with singular frankness of herself, her work, her aims, her home, her spiritual belief, and of the influence that directed her to literature. She never saw any of her five correspondents, but their youthful frankness, intense interest in all her writings, and their love for the author and for the characters of her creations, impelled her to turn aside from her work and cares to find diversion in chats with such eagerly enthusiastic, admiring, and sympathetic friends. Miss Alcott's first letter is dated 1872, and the others were written at intervals up to within a short time of her death.

FRANK LESLIE'S PLEASANT HOURS FOR BOYS AND GIRLS.—The opening chapters of a new serial story by Horatio Alger, jr., are given in the April number of *Frank Leslie's Pleasant Hours for Boys and Girls*. It is called "Gerald's Mission," and was written especially for this bright magazine. A girl's serial, entitled "An American Princess," by Evelyn Raymond, also begins in the April number, which contains several other attractive features. There are short stories by Sophie Swett, William Murray Graydon, Judith Spencer, Lieutenant Thomas H. Wilson, and Lurana W. Sheldon; an interesting paper on the methods of work of Thomas W. Knox, Frances Hodgson Burnett, William O. Stoddard, and Noah

Brooks, in the series, "Favorite Story-writers for Young People," by Frank Lee Farnell; the second paper on "Young People of the White House," by Joanna R. Nicholls; the editor's valuable talks on the new books for boys and girls; several illustrated poems; some prize puzzles, and many pictures. It is altogether an excellent number.

Drug Reports.

Canada.

Business during the past month has been much interfered with by severe storms of snow and wind that have paralyzed travel. The cities have suffered temporarily by railroads being blocked, but people in the country will suffer by roads being impassable for some time. Heavy goods have stiffened up in price, and those that are affected by heavy freight will continue until new supplies come forward on the opening of navigation. Blue vitriol promises to be very high, five cents being asked for large quantities already, and the season not near at hand for using it. Paris green still creeps up, and is worth from 17c. to 20c. Insect powder also maintains the advance; pure powder cannot be sold at a profit less than 28c. to 30c. Bismuths

are stiffening. Quinine, opium, and glycerine are gradually increasing in value. The Canadian agent of Roger & Gullet are putting Roger & Gullet perfumes on the rebate plan. Kootenay Cure has been reduced by the makers to \$1 per bottle. Anyone, we understand, can get credit for any in stock from their wholesaler. The retailers, we hear, are acting up to their agreement by insisting on outside dealers shipping goods through wholesalers only. We are glad of this information, as it is necessary in maintaining manufacturers advertised prices.

England.

London, March 27th, 1896.

There has been some activity in the markets during the past month, although the demand has not been so good as might be expected. Gum arabic has risen considerably on the Soudan campaign. Norwegian cod liver oil is steadily advancing, and Newfoundland oil is following suit. Opium and its alkaloids are appreciably dearer this month. Oils of cassia, aniseed, and caraway are also dearer. There has been a slight decline in jalap, but ipecacuanha is harder. Carbolic, citric, and tartaric acids have all enjoyed distinct advances, but there are signs that prices will soon be giving way somewhat.

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VIII.

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No. 5

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

Subscription \$1 per year in advance.

Advertising rates on application.

The CANADIAN DRUGGIST is issued on the 15th of each month, and all matter for insertion should reach us by the 10th of the month.

New advertisements or changes to be addressed

Canadian Druggist,

111 1/2 RICHMOND ST. WEST,

TORONTO, ONT.

EUROPEAN AGENCIES :

ENGLAND : Aldermay House, 60 Watling Street, London, E. C.

FRANCE : 5 Rue de la Bourse, Paris.

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Feeling the Pressure.

That the action taken by the newly-formed Society of Ontario Druggists would make itself felt if promptness and energy were displayed was predicted in these columns, and results so far fully justify our predictions. Not only have a large majority of the offending members in the trade been brought into line, but those outside of it, viz., the departmental stores and general dealers, are experiencing what a joint and determined action of so numerous a body may accomplish in a short time. That these departmental stores especially have felt this is very evident from their frantic endeavors to gain the sympathy of the general public, and to belittle as much as possible the efforts which are being so well directed to bring about a more business-like state of affairs. The "shoe pinches" hard; the worn-out, threadbare cries of "400 per cent." profit and "no monopoly" are being made to do duty, and the standard of "drugs at dry goods prices" is being flung to the breeze. In their desperate efforts to obtain supplies, they are using all kinds of subterfuges and adopting methods which, if they are those of the "dry goods," are certainly far removed from honorable business principles.

Foiled, as they have been, in their endeavor to obtain complete lines of patent they are now putting up lines of their own, with the combined idea of injuring the patent medicine manufacturers, some of whom too readily supplied them goods, and the druggist, whose legitimate business they covet.

In the Toronto dailies, not long ago, there appeared an advertisement of The T. Eaton Co. offering Young's Sarsaparilla, with T. Eaton & Co.'s name on it as manufacturers, and price one dollar, but which they were willing to sell to the "bargain"-loving public at 35 cents—in all probability, all, if not more than all, it was worth.

The fact that The T. Eaton Co.'s name

appears on the label does not seem to tally with the fact that they have made "a special purchase of five thousand bottles," nor does the statement afford much satisfaction to those manufacturers who may have hitherto supplied them by the announcement that "the average Canadian will prefer to pay 35 cents when he knows this simpler and safer than most of the remedies that call themselves 'first class.'"

Many other "dry goods" lines of patents are also being foisted on an unsuspecting public in the same way.

In this there is also a lesson for the proprietary medicine manufacturer and others who have been in the habit of catering for the business of the departmental store. Many of them sought for this trade, and sold at prices which they have refused to grant to a wholesale druggist, under the impression, as some of them stated, that the departmental store would buy more in a month than any half dozen city stores would in a year. Granting this to be the case, they fail to look beyond this, and recognize the fact that in selling these "stores" they were antagonizing an army of druggists throughout the whole of Canada, who could, if they felt so disposed, do more to curtail their sales than any of "the stores" could do to increase them; also losing sight of another fact, that these same "stores" were only using them for their own purposes, and as soon as other lines presented themselves which could prove more profitable they would get the cold shoulder; and then where is the manufacturer, having lost the druggists' influence in the first place, now that of the "stores," what avenue has he left for the disposal of his goods? It is one of those cases where the boomerang is felt, and felt severely.

To Abolish the Department Stores.

A correspondent of the *National Retail Jeweler*, Philadelphia, in a recent number of that journal, suggests the

united action of all business houses in "forming an organization that shall have sufficient power to enact a law in each state" to do away with the great "octopus" which threatens the well-being of the community by the demoralization of business and the consequent ruin of the small dealers. He says:

"To my mind, the selling retail by wholesale houses pales into insignificance when we consider the inroads that the department stores are making into our business. I need not enlarge on that—it would be a waste of time and space. The question is—*What are we going to do about it?*"

"We can do nothing as a single trade; it is a gigantic evil, in that it has already caused and is still causing the ruin of thousands of storekeepers. It is an evil that needs to be met by extraordinary measures.

"Many will say: 'It's impossible to save ourselves—we are all doomed to ruin'; and at once they give up the thought of a struggle, accepting what they consider to be the inevitable. But we would remind them that many seeming impossibilities have been accomplished in the history of the world, and will be again."

"The evil is also a serious matter for wholesalers and manufacturers, whether in the jewelry, dry goods, furniture, or any other industry. As the operations of department stores increase, the wholesaler will be generally ignored, and dealings be made with the manufacturer direct. Many manufacturers will be crowded out, as purchases will then be centralized, as participants in the devastating ruin. We might include the owners of store properties. Many of them are now feeling the pinch."

"What is to be done? Shall we accept the conditions, and do nothing? No, decidedly not. I have a suggestion to make, which will, if acted upon, remedy the evil. Induce all the business houses affected throughout the country to combine, forming a strong organization that shall have sufficient power to enact a law in each state as follows: No person, firm, or corporation in any town or city of over two thousand inhabitants shall carry on a business which can be construed as a department store, that is, a place where different businesses are carried on under one head."

"In Philadelphia, last year (1895), over twenty thousand firms were assessed for mercantile tax. Twenty firms, or less, take the cream of the business. The small storekeepers pay the taxes—the department stores reap the benefit. What would be the estimate for the whole United States!"

The proposition that all business houses, wholesale and retail, should unite in order to secure legislation in this matter is one that deserves consideration, and the fact that the voting power is largely in favor of the small dealer is by no means a small factor in a struggle of this kind. The department store is certainly one of the worst "combines" with which we have to deal, and the individual or the government who will devise a plan to remedy the existent conditions may depend on a hearty support.

Ontario Society of Retail Druggists.

We are glad to be able to report continued progress, both in the interest taken by the retail drug trade and in the additions to the list of wholesale houses who have signed the agreement. The following names have been added to the "Friendly List":

The McDowell, Atkins, Watson Co., Vancouver, B.C.

Langley & Co., Victoria, B.C.

Scott & MacMillan, Toronto, Ont.

J. Stevens & Son (Ltd.), Toronto, Ont.

The Martin, Bole & Wynne Co., Winnipeg, Man.

Powell & Davis Co., Chatham, Ont.

Seabury & Johnson, New York, N.Y.

Canadian Drug Co. (Ltd.), St. John, N.B.

Amongst some of the replies received in answer to the secretary's call for money are the following, which show the appreciation of the trade generally throughout the province:

Evidently on the right track now.

Yours truly,

Rat Portage. JOS. JOHNSON.

Trust your efforts will meet with the success they deserve.

Yours truly,

Chesley. A. S. GOODEVE.

Enclosed find one dollar you call for to keep chariot rolling.

Yours truly,

Drumbo. J. A. MITCHELL.

I have only one remark to make, and that is, keep on with the work, and do not hesitate to call upon me for any necessary funds to carry out the same.

Sincerely yours,

Tilsonburg. WM. McDONALD.

Trusting that the work which you have undertaken may meet with success.

Truly yours,

Streetsville. R. H. McCLUNG.

DEAR SIR,—The O.S.R.D. has made

many dollars for me since it started, and I cheerfully enclose \$1.

Yours truly,

1 Esplanade. W. J. MALLEY.

DEAR SIR,—I enclose you one dollar in response to the call of the executive of the association. It is cheerfully contributed, with the hope you may be enabled to fight a winning battle.

Yours truly,

Guelph. ALEX. STEWART.

A Pure Acid.

Office of A. R. PYNE, M.B. TOR. UNIV.,
M.C.P. AND S. ONT.,

Lecturer on Practical Chemistry, Woman's Medical College, Toronto; Analyst Medical Health Office, Toronto; Dominion Analyst by Examination.

"This is to certify that I took a sample of acid from a demijohn which the had sold as 80 per cent. acid and found it contained 81.2 per cent. of acetic acid (C₂H₄O₂)."

A. R. PYNE, M.B.,

Dominion Analyst.

This refers to the acetic acid manufactured by Peuchen & Co., Toronto, and a strong endorsement as to the strength and purity of this article.

"House Organs."

F. Stearns & Co., manufacturing pharmacists, of Detroit, define their position on the question of the "house organ" in a way that must commend itself to those who oppose "sailing under false colors" and are in sympathy with proper business methods. This is what they say of the *New Idea*:

"Most publications of manufacturing concerns which pretend to be independent journals are house organs pure and simple, yet by sailing under false colors secure second-class postage rates, and thereby defraud the government of hundreds of thousands of dollars annually. The *New Idea* is our house organ, and as such sails under its true colors, pays cent postage for each copy mailed, and does not pretend to be an independent journal. It is both scientific and commercial, not too much of the one to be detrimental to the other. Forty to fifty thousand copies are mailed of each issue to our customers in the drug trade and to members of the medical profession; none are ever sent to the laity."

The Phenacetin Suit.

Re Phenacetin, regarding which a legal warning has been sent out to the druggists and doctors of Ontario, the case of the Farbenfabriken against Scott & MacMillan, Toronto, for an injunction to prevent the defendants selling this drug came up before Judge Rose on May 14th when the Chief Justice ruled to allow the defendants to sell until such time as the trial of the trade mark came up in court refusing interim injunction which was asked for by the plaintiffs.

Protonuclein..

Tablets. (100 3 grain Tablets in bottle) per doz. \$9.00
 " (1000 3-grain Tablets in bottle) . each 6 75
 Powder. (1 oz. bottles) per doz. 9.00
 " (8 oz. in bottle) each 5.50

REED & CARNRICK,
 30 Wellington St. East, TORONTO.

Duncan, Flockhart & Co.'s

Blaud Pill Capsules

Are soft and flexible Never become oxidized
 Never become hard Never vary in strength

These Capsules are put up in 1, 2, and 3 pill sizes, with or without Arsenic, and can be supplied in boxes of 25 or 100 (each). They are prepared by a unique and original process, which entirely overcomes the tendency to **hardening** which is so common in the Blaud Pills.

R. L. GIBSON,
 30 Wellington St. East,
TORONTO.



SEASON 1896.

BILLINGS, CLAPP & CO.'S

IDEAL
LEMONADE
 and
ROOT BEER
TABLETS

Put up in 10-Cent Bottles

Are the best Tablets we have handled, and have given general satisfaction.

They are to the front again this season.

Price: 85 Cents a dozen or \$10.00 a gross.

For the Soda Water Fountain.

French, Cave & Co.'s Crushed Violet, Red Orange Phosphate, also Tangerette, Lime Phosphizz, Mulford's Pure Grape Juice, Murchison's Acid Phosphate.

Fresh Stock of

Pepsin Chips and Fruit Chips, Tolu Sugar Plums, Sweet Wheat, After Dinner and Celery Pepsin Gums; Heide's Licorice Pastilles, Chapireau's Cachets, etc.

Adam's Root Beer Extract

15 and 25 cent bottles.

CANADIAN SPECIALTY CO.

38 Front Street East, Toronto, Ont.

FORSALE: 1 Kingery Ice Breaker and Shaver combined for counter

Fruit Juices

H. B. & W.

QUART CHAMPAGNE BOTTLES.

RED MESSINA ORANGE.

CHERRY RIPE.

IMPERIAL SICILY LEMON.

PINEAPPLE.

RASPBERRY.

STRAWBERRY.

CATAWBA GRAPE.

BANANA.

PEACH.

CALISAYA PHOSPHATE.

CHOCOLATE in 1 lb. and 5 lb. cans.

Bryant's Root Beer

AS OFFERED LAST MONTH

\$9.00 per Gross with Sign.

National Formulary.

Excelsior Egg Preserver.

Vaccine in Sealed Glass Tubes.

Genuine St. Thomas Bay Rum.

Eff. Caffeine and Pot. Brom., 25c., "E. & Co."

Syrup of Figs, 50c., "E. & Co."

Insect Powder in Shakers, 15c.

McLachlan's Boiled Sugars.

CORRESPONDENCE RESPECTFULLY SOLICITED.

Elliot & Co.,
 5 Front St. East, = Toronto.

PROFIT FROM
100 to 200
PER CENT.

EVERY JOBBER
SELLS
TANGLEFOOT.



REGULAR

ONE BOX, 45 cents.
ONE CASE, \$4.00.
(10 Boxes)
FIVE CASES, \$3.75.

"LITTLE"

ONE BOX, 18 cents.
ONE CASE, \$2.10.
(15 Boxes)
Size, 5 1/4 x 9 inches.

..TANGLEFOOT..

SEALED

STICKY FLY PAPER.

The Difference....

Some Leaks at the Edges.
Some Soaks Through the Paper.
Some Dries After Short Exposure.
Some Tears Easily in Opening.
Some Spoils over Winter.
Some Allows Flies to Escape.

TANGLEFOOT
DOES NOT!

HOLDERS are no longer packed with TANGLEFOOT, but are put up separately in boxes of fifty, which job for \$1.00.

Ontario College of Pharmacy.

SEMI-ANNUAL EXAMINATIONS, MAY,
1896.

DISPENSING.

Examiner—W. MURCHISON. Time allowed, three hours.

MRS. ELY.

- R Emulsio Ol. Ricini..... 50%
Mitte..... 3ii.
Sig. cap. coch. magn. dimid. q. q. h

MR. BEGG.

- R Emp. Bellad. (reniform) 1½ x 4 in.
Fiat emplastrum, super alutalum extendum.
Applicetur regioni renum pro septem dies.

MISS FINN.

- R Mitte Emp. Lyttæ pro dextro auris.
Usque ad vesicat bene appl.

J. DUFF.

- R Plumbi Acetatis..... gr. iii.
Acidi Tannici..... gr. ii.
Ol. Theobrom. q. s. ut fiat, suppos.
Mitte tres.
Sig. unum statim utend.

MISS MOSS.

- R Ferri et Quin. Cit..... 5ss.
P. Glycyrrhizæ rad..... gr. x.
Ft. massa et divide in pil. decem.
Sig. Cap. unum p. c. s. o. s.
Values—25, 20, 15, 20, 20.

CHEMISTRY.

Examiner—PAUL L. SCOTT. Time allowed, two hours.

1. Define the terms: Molecule, Isomeric, Isomorphous, Soap, Anhydride, Amalgam, Glyceryl, Critical Temperature.

2. Describe, giving equation, the usual method of preparation of Mercuric Chloride. Give characters and tests for identity and purity of this salt, stating what is indicated by each test.

3. The following mixtures are exploded in a Eudiometer tube:

- (a) One volume of Oxygen and one of Carbon Monoxide.
(b) One volume of Oxygen and two of Carbon Monoxide.
(c) One volume of Oxygen and three of Carbon Monoxide.

State, in each case, what gases and what volume of each, measured at the original temperature and pressure, will be contained in the Eudiometer after explosion.

4. Show by means of equations the action of

- (a) Ferrous Sulphate upon Potassium Carbonate.
(b) Metallic Sodium upon Water.
(c) Iodine upon Caustic Potash in solution.
(d) Phosphorus upon boiling Milk of Lime.
(e) Nitric Acid and Steam upon Sulphur Dioxide.
(f) Hot Sulphuric Acid upon Charcoal.

5. What weight of a solution, containing 10% by weight of Ammonia Gas, will be required to precipitate all the Iron from 560 c.c. of a solution of Ferric Chloride, containing 200 gm. of Metallic Iron to the litre? Show work.

6. What are the Paraffins? Give general formula of the series, and state in

general terms in what respects the members differ chemically and physically from one another.

7. Explain briefly the principles upon which Spectrum Analysis is based. Under what circumstances will bright and dark lines respectively be produced?

8. Describe the preparation and purification of Chloroform or of Ether, explaining, with or without equations, the nature of the reactions which occur.

9 and 10. Recognition of specimens and oral examination.

Values—12, 10, 8, 12, 10, 8, 10, 10, 20.

PHARMACY.

Examiner—F. T. HARRISON. Time allowed, two hours.

1. Give practical notes on the preparation of three of the following: Wine of Ipecacuanha, Fowlers' Solution, Strong Solution of Acetate of Ammonium, Syrup of Iodide of Iron.

2. Enumerate the impurities or adulterants likely to be present in any three of the following, and state how same may be detected: "Solution of Potash, Spirit of nitrous Ether, Saccharated Carbonate of Iron, Light Magnesia.

3. Name the ingredients and proportion of more active ingredients in: Wine of Opium, Tincture of Rhubarb, Tincture of Kino, Spirit of Chloroform, Syrup of Chloral.

4. Ext. Nux Vom.: Describe preparation and standardization. The menstruum used is four of Rectified Spirit to one of Water; would Rectified Spirit alone answer equally well? Give reason for your answer.

5. (a) State method of taking specific gravity of a substance insoluble in and lighter than water.

(b) A substance weighs in air 20 grams, and in Petroleum Ether (sp. gr. .685) 1 gram, what is the specific gravity of the substance?

6. How would you prepare Pure Ether from a sample of Ether containing a little alcohol?

7. What is an Elixir? How may an Elixir of Cinchona be prepared which will not be incompatible with Tincture of Iron?

8. State reasons for the use of: Chloride of Ammonium in Solution of Perchloride of Mercury. Hydrochloric Acid in Liquid Extract of Cinchona. Carbonate of Potassium in Ointment of Iodide of Potassium. Glycerine in Ointment of Iodine.

9 and 10. Oral and recognition of specimens.

Values—12, 12, 15, 12, 4, 4, 7, 6, 8, 20.

BOTANY.

Examiner—D. A. WHITE. Time allowed, two hours.

1. Name the parts and describe the structure and functions of a Leaf.

2. Name and give examples of the different forms of Underground Stems, and distinguish between these and roots.

3. Explain the movement of sap in plants.

4. Define the terms: Anthotaxy, Spathe, Polygamous, Endosperm, Involu-

cre, Hilum, Perigynous, Caryopsis, Caul-
escent, Medullary Rays.

5. Describe difference in structure and mode of growth of the stems of Monocotyledons and Dicotyledons.

6. Name the chief characteristic of the orders Composite and Umbellifere.

7. Do plants reproduce themselves in other ways than by seeds? If so, name different ways.

8, 9, 10. Oral: including questions in Cryptograms.

Values—10, 10, 8, 10, 10, 12, 10.

PRESCRIPTIONS.

Examiner—A. R. FRASER. Time allowed, two hours.

1. Translate into English, and describe very fully the manner of mixing, the following:

Recipe—

Oleum Morrhuæ uncias sex.
Creasote "Beechwood" drachmam unam.
Oleum Menthe Piperatæ drachmam semisse.
Pulveris Acaciæ quantum sufficit.
Aque Gaultheriæ ad uncias octo.

Misce fiat Emulsio pro leges artes de qua cochleare amplum, ex aque vel Vini Nericî uncias duas bis die post prandium et post cenam.

2. Translate and give manner of dispensing the following:

- R (a) Emp: Bellad. partes tres.
Emp: Plumbi partes quinque.
Emp: Resinæ partes duas.
Morph: Mur. gr. x.

Misce. ft. Emp: super pannum linteum extend. et. cuti affectæ applica. more dictu.

- R (b) Iodoform..... 1 scr.
Sulphur Iodid..... ½ dr.
Cera Alb..... 1 "
Cerat Galeni..... 1 oz.

Misce. ft. Ung: et applicetur paululum auri affectæ omni nocte cum gossypio.

3. What quantity of the following will dissolve in a six-ounce bottle of water:

Codeine, Mag: Sulph: Soda Bicarb: Iodoform, Am: Carb: Acetanilid: Phosphorus: Pot: Iodid.

4. Give full Latin (if required) and English for the following:

Dosi pedetentim crescente, cochleat., pocillum, pugillus., manipulus., cujusl., col., dieb tert. frust. F. Venas.

5. A prescription reads:

- R Codeine..... ½ gr.
Aq: Dist..... 1 dr.
Take at bedtime, mitte 8 oz.

You keep in stock a solution 1 gr. in 100. How much of the solution would you use, and what directions would you put on the bottle? Show work.

6. What are the regulations necessary to observe in the sale of spirituous liquors in a drug store, as required by law?

7. Give Latin name and dose of following:

Koussou, Nitrate of Copper.
Solution of Ferric Chloride.
Glauber Salts.
Salts of Sorrel, Menthol, Oxide of Zinc.
Hydrochlorate of Cocaine.

8-10. Oral Examination.

Values—10, 14, 8, 10, 10, 8, 10, 30.

MATERIA MEDICA.

Examiner—J. TOLBERT PEPPER. Time allowed, two hours.

1. (a) What are Volatile Oils? (b) Of what two principles do Volatile Oils proximately consist? (c) What is the most characteristic feature of Volatile Oils? (d) Describe two methods by which Volatile Oils may be obtained, with an example of an oil obtained by each process. (e) How may the adulteration of Volatile Oils by a fixed oil be detected? (f) How may the presence of Alcohol be shown? (g) What is the chemical synonym for Oil of Wintergreen? (h) Give its official name, with the proper Latin terminations. (i) Give the botanical name of the plant yielding it. (j) From what other plant is much of the Oil of Wintergreen of commerce obtained? (k) What acid may be prepared from it? (l) To what are the colors of Volatile Oils due, and how may they in most cases be removed? (m) On exposure to the air, more particularly in the presence of light and moisture, Volatile Oils become darker and thicker; what would you do to retard or prevent these changes?

2. Give in one or two words the therapeutic action of Digitalis, Scilla, Ulmus, Cantharis, Lappa, Senega, Prunus Virginiana, Hamamelis, Eucalyptus, Uva Ursi.

3. What is the habitat of Cascara, Strophanthus, Rumex Crispus, Kola, Sarsaparilla, Camphora, Mastich, Chirata, Ipecacuanha, Canella?

4. What part or parts of the following drugs are used in medicine: Caryophyllus, Myristica, Amygdala, Mentha Piperata, Tamarindus, Catechu Pallidum, Santonica, Gossypium, Theobroma, Linum?

5. Give the Natural Order of Ergota, Belladonna, Cubeba, Buchu, Nux Vomica, Benzoinum, Senna, Asafoetida, Chondrus, Cardamomum.

6. (a) What is the British Pharmacopœial Latin name of Nut Gall? (b) How is it produced? (c) By what means? (d) On what plant? (e) In what country? (f) Name chief constituent, and give percentage. (g) Name some things which are incompatible with it. (h) For what is it used?

7. Give a general description, and the essential points in the minute structure and micro-chemistry of a starch grain.

8, 9, 10. Recognition of crude drugs and oral examination.

Values—*a*, 1; *b*, 2; *c*, 1; *d*, 4; *e*, 2; *f*, 1; *g*, 1; *h*, 1; *i*, 1; *j*, 2; *k*, 1; *l*, 1; *m*, 2; 10, 10, 10, 10; *a*, 1; *b*, 1; *c*, 1; *d*, 1; *e*, 1; *f*, 1; *g*, 1; *h*, 1; 10, 20.

College of Pharmacy.

The annual meeting of the Montreal College of Pharmacy was held in the college building, 595 LaGauchetière street, on Thursday night at 8 o'clock.

David Watson, Esq., occupied the chair, calling upon the secretary, Mr. E. Muir, to read the minutes of the last meeting, also the annual report and finan-

cial statement for the year just closed, after which Mr. W. H. Chapman, seconded by Mr. A. J. Lawrence, moved the adoption of the report and statement as read. The president now delivered his retiring address, stating that, owing to the fullness of the report read by the secretary, there was little left for him to make any lengthened speech. He, however, made reference to his retiring from the office of president, a position he had occupied for the last eight years, thanking the members, and especially the boards with whom he had the pleasure of working, for the kindness they had always shown him. During the course of his remarks, the president referred to pending lawsuits, the mortgage on the college property, which had been considerably reduced, the changes in the curriculum, the appointment of new professors, and the approaching meeting of the American Pharmaceutical Association in this city on August 12th next. At the conclusion of his address, the president appointed Prof. T. D. Reed, M.D., and Prof. Jos. Bemrose as scrutineers to count the ballots for the new executive board, after which he presented the following prizes, namely, a gold medal to Mr. James A. Gillespie, donated by Mr. A. S. Holden (a former graduate of the college), as first prize for highest merit at the April major examinations of the Pharmaceutical Association; a copy of "Remington's Pharmacy" to Mr. R. J. Lunny, donated by Mr. A. J. Lawrence, druggist, of this city, he having won the minor prize as "certified clerk of the Pharmaceutical Association." To the students obtaining the college prizes, as follows: James A. Gillespie, botany prize; R. J. Lunny and W. Frothingham Roach, senior materia medica prizes; Henri St. Georges, junior materia medica prize; R. H. D. Benn and George H. Voss, junior chemistry prizes.

On motion, Mr. Watson left the chair, and Mr. W. H. Chapman, president elect, acted as chairman for the remainder of the meeting.

A vote of thanks was tendered to the retiring board for their valuable services during the past year.

The following motion was then presented: Moved by Mr. S. Lachance, seconded by Mr. R. W. Williams, "That the members of the Montreal College of Pharmacy desire to express to Mr. David Watson their sincere thanks for the able manner in which he has presided as the president of the college for the past eight years. They also desire to express their deep regret that he has felt it his duty to retire from the presidency, as they feel that losing him as their president will be a loss not easily replaced; and in parting with him as their president they would venture to express the hope that he will continue to take a lively interest in the affairs of the college." Carried by a rising vote.

Mr. Chapman, president-elect, on behalf of the members of the college, presented Mr. Watson with a very handsome

solid silver fountain pen, and also a very beautifully illuminated address, with the following inscription thereon:
To David Watson, Esquire:

DEAR SIR,—On the occasion of your retiring from the office of president of the Montreal College of Pharmacy, we, the members, wish herewith to record our appreciation of the valuable services rendered by you during the eight years of your presidency. From the foundation of the college until now, your wise counsel, so readily given, backed by the active work in which you have been indefatigable, we feel have done much in bringing this institution to the high place of usefulness and efficiency in which we are proud to see it to-day. Specially would we mention the part you took in the work of acquiring a permanent building, suitable and worthy of the Montreal College of Pharmacy. In expressing our thanks for past work in our midst, and our most sincere regret that you are leaving the position so long and honorably filled by you, we venture to hope that your interest in the college will not cease on your retiring from office, but that it may have the benefit of your advice for many years to come, and that you may, under Providence, be long spared to enjoy a happy and prosperous life.

Signed on behalf of the members,

W. H. CHAPMAN, President.

E. MUIR, Secretary.

Montreal, May 7th, 1896.

Mr. Watson, on rising to respond to the resolution and presentation of the address, expressed himself taken entirely by surprise, and its suddenness had completely overcome him. He, however, desired to return his sincere and grateful thanks to the members for their manifestation of their appreciation of his services as president, assuring the members that he would always look upon the beautiful illuminated address and the sentiments it contained with great pleasure, and treasure it during life, and when done with it in this world would hand it over to his eldest son.

The scrutineers now handed in their reports, declaring the following gentlemen having been elected as the executive board, namely: J. E. Tremble, A. J. Lawrence, C. J. Covernton, H. R. Lantot, C. E. Scarff, T. E. Barbeau, R. W. Williams, A. M. Macmillan, and A. Decary.

The chairman then announced that the board for the ensuing year would be as follows: W. H. Chapman, president; Alexander Manson, treasurer; together with the foregoing gentlemen elected to the executive board. No election having taken place for vice-president, that office would be filled at the first meeting of the new board.

Before adjourning, Mr. Watson desired to bear testimony to the very efficient services of their secretary, Mr. E. Muir, whom he had always found willing, even to step out of his ordinary duties, to further the interests of the college.

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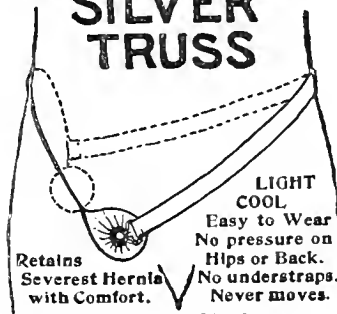
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Common Sense Exterminator FOR ROACHES:

25c. each, \$1.75 doz.; 50c. each, \$3.75 doz.; \$1.00 each, \$8.00 doz.

Common Sense Exterminator FOR RATS AND MICE:

15c. each, \$1.00 doz.; 25c. each, \$1.75 doz.; 50c. each, \$3.50 doz.; \$1.00 each, \$8.00 doz.

Only infallible remedy known. No smell from Dead Vermin. Not Poisonous to man or beast. Once used always recommended. Sold by Wholesalers at

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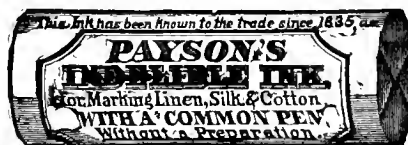
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NIPPLE CANNOT COLLAPSE

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Trade Notes.

The Greenwood Drug Co. have opened a drug store at Greenwood, B.C.

Dr. Henry's drug store, Ainsworth, B.C., has been destroyed by fire.

John Gayfer, druggist, Ingersoll, Ont., died May 8th, after an illness of only a few days.

Dagg's drug store at Rathwell, near Winnipeg, Man., was destroyed by fire last month.

J. F. Donaldson has purchased the drug business of J. W. Edwards, Three Forks, B.C.

E. L. Nash & Co., druggists, Lunenburg, N.S., are offering to compromise with their creditors.

C. T. Wilmot, druggist, has removed to 700 Yonge street, corner St. Mary street, Toronto, Ont.

Mr. Kendall has purchased the drug business of H. Sherris, Queen street west and Esther street, Toronto, Ont.

N. Lauder has purchased the drug business of W. R. Read, known as the Johnston Drug Store, Toronto, Ont.

George Dale has purchased the branch drug store of Mitchell & McLean, corner Shuter and George streets, Toronto, Ont.

Josiah Green, druggist, corner of Euclid avenue and Queen street, has made an assignment. He had branch stores also at Lambton and Cooksville, Ont.

The Alpha Rubber Co., Montreal, have removed their factory to Hochelaga, and opened a business office and sample room at 335 St. Paul street, Montreal.

J. C. Gray & Co., druggists, Queen street west, Toronto, have removed to a much more convenient and better stand, corner of Queen street west and O'Hara avenue.

G. E. Gibbard, of the Ontario Society of Retail Druggists, has, we understand, secured an interest in the *Canadian Pharmaceutical Journal*, and will combine journalistic work with that of organizer.

O. S. Botsford, druggist, 1094 Queen street west, Toronto, Ont., committed suicide by shooting himself through the head while temporarily insane, May 10th. Deceased was thirty-seven years old, a widower, and leaves one son.

Amongst those present at the O.C.P. last week were Prof. F. J. Harrison, of London, Ont.; Mr. J. T. Pepper, secretary treasurer of the Ontario Society of Retail Druggists, Woodstock, Ont.; and Paul Scott, of Paris, Ont. They are examiners at the college.

W. E. Thistle, Hartland, N.B., has moved into his new drug store in Taylor's building, and has now one of the nicest and most complete stores in the county. It has been handsomely fitted throughout, has an attractive plate glass front, and is well lighted and heated.

A. L. Griggen, a farmer of Moosomin, N.W.T., claims to have invented a bottle which can only be used once. He has had the invention patented in England, and has gone there to see about placing it on the market. The idea is to have a bottle which cannot be filled a second time and palmed off for the original article.

The Toronto Pharmacal Co. have opened an office and wareroom at 136 Bay street, Toronto, where they will carry on business as manufacturers and agents. They represent a number of Canadian and English proprietary medicines. The promoters are Messrs. W. Murchison, H. Sherris, and C. D. Daniel.

In our April issue, it was stated that W. A. Griffiths Co., Vancouver, B.C., were about to remove their drug business to the store occupied by Wetherell & Co. Our informant, we find, was in error, as the firm named intend occupying the premises formerly occupied by the Hudson Bay Co. on Cordova street. This store is being specially refitted, and, when complete, will be the largest retail drug store in the city and in the finest locality.

The new early closing by-law passed last October by the city council of Montreal came into force May 1st. It provides that all shops during the whole year shall be closed at 8 p.m., except on Saturdays, Mondays, and the eve of holidays. Section 2 provides that nothing contained in the present by-law shall, during the time shops are to remain closed, prevent the sale or delivery of merchandise which may be required in cases of death, sickness, or accident; nor, in drug stores, the sale or delivery of medicine or surgical instruments or apparatus.

Montreal Notes.

Mr. W. H. Griffith, of Sherbrooke, was married some few weeks ago to Miss Murray, of the same place. The happy couple left on their wedding tour immediately after the ceremony. Mr. Griffith is well known in Montreal, and his pharmaceutical friends wish him every success.

The early closing municipal by-law, based on the Provincial Act, came into force on May 1st. Dry goods, grocery stores, *et hoc*, consider it a great boon, and there seems to be no valid reason why it should not work well. Working-men have had their innings, and now it is about time that shop clerks should have theirs.

Druggists, under the law, are permitted to sell medicine and sick room appliances, but not ordinary merchandise. The hour for general closing is 8 p.m., except on Mondays and Saturdays. The probability is that druggists will put down their window lights at that hour, leaving their shop lights burning, with a clerk or two on duty for prescriptions, etc. The difficulty is that certain druggists in Montreal

seem to endeavor to make life in a drug store not worth living. They are not content with keeping open quite unnecessarily all day on Sunday, but on Sunday evenings they illuminate their windows to attract custom. Fortunately for the good of morality they do not succeed, as an occasional walk round will satisfy anyone that the business done amounts to very little, perhaps with the exception of those who sell soda water and cigars and general merchandise.

There is some talk of Laval University establishing a pharmacy course, and that the university will apply for an act obliging the Pharmaceutical Association to accept their certificates of examination. The association, as their charter now stands, is obliged to accept such certificates, providing the curriculum of study is, in the opinion of the council, equivalent to that required by the association. This talk about Laval is always trotted out after an examination. It does not amount to much. It is something like the tall talk indulged in every time the law falls foul of some notorious sinner against the Pharmacy Act.

Business continues very dull amongst pharmacutists, owing probably to the number of pharmacies being ahead of the requirements of the public. There are always numbers of stores trying to sell out, and one would think it wiser to buy out an established business, be it ever so small, than to risk a new venture. Your article of last month just hit the mark on the multiplication of drug stores.

Mr. Watson is retiring from the presidency of the College of Pharmacy this year, and an address will be presented to him on the occasion. Mr. Chapman is to succeed him, and there is no doubt he is peculiarly fitted for the position.

Mr. Jules Hertz, late with Mr. Costant, is busy fitting up his new pharmacy at the corner of Place d'Armes Hill and Craig street, and expects to shortly open.

On dit that Mr. Barbeau, pharmacist of St. Catherine street, recently won a large sum of money in a St. Lawrence street lottery. It is placarded up in the lottery people's window as a good advertisement.

Mr. Dyer, who recently opened again on St. Catherine street, has been obliged to close up, owing to circumstances beyond his control.

A meeting of the Council of the Pharmaceutical Association was held yesterday, when it was decided to pay half the expenses of the reception of the American Pharmaceutical Association, providing the College of Pharmacy pay the other half.

The members of the Executive Committee, who are looking after the entertainment of the visitors who will be present at the approaching annual convention of the American Pharmaceutical Association, are working hard, and have made very satisfactory arrangements with the Windsor Hotel. Collectors are a

work taking down the amount of subscriptions druggists are willing to give.

The *Witness* states that Mr. H. H. Curtis, druggist, Bleury street, has assigned to Messrs. Lyman, Knox & Co., of this city.

Manitoba Notes.

The drug trade throughout the province has been keeping pace with that of former years, notwithstanding the tardiness of spring, and, later, the almost impassable condition of the roads caused by the recent heavy rains which have been pretty general throughout the west. Within the next ten days, however, seeding will be going on at many points, after which trade may be expected to improve.

A meeting of the Council of the Pharmaceutical Association of Manitoba was held at the Clarendon Hotel, Winnipeg, on the 10th of April. The following members were present: W. R. Bartlett, Brandon; E. D. Martin, J. F. Howard, J. C. Gordon, W. Pulford, C. Flexon, and A. E. Kelly, Winnipeg. The principal business transacted was the reception of the report of the spring examinations by the Board of Examiners. The report showed that 22 students appeared before the examiners at this sitting, 5 for the major and 17 for the minor examination. Of this number, 11 were successful, 3 in the major and 8 in the minor. Following is a list of successful candidates in the order named:

Major Examination.—1, J. Giles, Portage la Prairie; 2, W. Brooking, Winnipeg; 3, John Love, Minnedosa.

Minor Examination.—1, G. Deyree, Brandon; 2, Miss Simpson, Brandon; 3, J. H. McVicar, Winnipeg; 4, W. J. Robertson, Winnipeg; 5, J. P. Leveque, Winnipeg; 6, C. E. Haggard, Winnipeg; 7, G. H. Carman, Winnipeg; 8, J. G. Coates, Winnipeg.

Examiners: L. W. Leithhead and B. M. Canniff.

Copies of examination papers will be found elsewhere in this issue.

"Important Proposition" is the title of a circular just issued to the retail druggists of Western Canada, creating not a little merriment throughout the province. A certain western druggist offers to buy on a commission of 5 per cent. such supplies as may be required from time to time by the trade, providing the druggists will unite with a reasonable unanimity "for their mutual benefit." A reason given is that, during the last quarter of a century, profits in the drug line have been steadily decreasing; and to support the proposed remedy the druggists of Manitoba and the West are invited to wheel into line, and endeavor to sustain a high grade of profit by buying upon a basis outlined, and thereby ensure the safety of the drug trade. A feature of the proposed scheme is "spot cash" for all purchases.

Dr. R. Wheeler, proprietor of the Birtle drug store, was in Winnipeg last week.

Mr. H. E. Butcher, of Flexon & Co., druggists, Winnipeg, has returned to his position after a serious illness of eight weeks duration. His friends are pleased to see him about again.

Messrs. Dixon & Keely have purchased the drug business formerly conducted by Mr. E. S. Knowlton, Winnipeg. Both of these gentlemen are well and favorably known in Winnipeg, and their many friends wish them every success in their new venture.

Dr. C. M. Vanstone, of Wawanesa, is purchasing the drug business of Messrs. Arkell & Co. and Fleming & Sons, of that place, and will continue the same in future under one roof.

Dr. L. A. Knight is opening a drug store at Ninga. He left for Winnipeg last week to purchase a stock.

British Columbia Notes.

Affairs in Vancouver are by no means brighter than they were at the last writing. For a time the druggists thought that an amicable arrangement could be arrived at, but the cheap-rate drug store, presided over by a gentleman who has just recently attained his majority, is making things decidedly disagreeable for everybody. Victoria has decided to be more cautious, and expressed a desire to join the Retail Druggists' Association. It is not likely, however, that Victoria will ever have such trouble as is now visiting Vancouver.

Death of A. J. Langley.

Alfred John Langley, one of Victoria's pioneer and most successful druggists, died April 9th, at the ripe old age of 75 years. Deceased, who in his younger days led an active life, has for several years been a sufferer from paralysis of the muscles, which had kept him confined to the house since last November, and which finally caused his death. He was conscious up to the last, retaining that brightness of intellect which had characterized his life. Mr. Langley was born in Lichfield, Staffordshire, England, on October 15th, 1820. When quite a young man he crossed the Atlantic to make his home in America. After a short residence in Digby, N.S., he moved to New York, where he spent seven years. Full of energy and ambition to make a success of life, he, in 1849, joined in the rush for California. Unlike most of the gold-seekers, however, he did not lose his head over the reports of fabulous finds on the Sacramento, but settled down to business in San Francisco, establishing the drug firm which now bears the name of Langley & Michaels Company, which is one of the largest in San Francisco, and the senior member of which is his sister-in-law. After building up this firm on a solid foundation, Mr. Langley, in 1858, came to Victoria and established the firm of Langley & Co., which is now known in every nook and corner in British Colum-

bia, and which has branches in other cities of the province. In the fall of 1886, having admitted Messrs. J. N. and T. M. Henderson into partnership, Mr. Langley ceased from taking an active part in the business.

Although he had not recently taken an active part in public affairs, Mr. Langley had always taken a lively interest in the welfare of his adopted city and province. His name is closely connected with the early history of Victoria and British Columbia, he having taken his share with the other pioneers in making it what it is. He was a member of the Legislative Council of the colony under Sir James Douglas, and was appointed commissioner from the colony to the great exhibition in London in 1862. The Pacific colony was at that time attracting a great deal of attention in Great Britain, and Mr. Langley took advantage of this to make known its attractions as a home. For his valuable services to his country he was offered a knighthood, which he refused.

A family of three sons, Dr. Langley, W. H. Langley, barrister, and A. G. Langley, and two daughters survive him. —*Victoria Times*.

Manitoba College of Pharmacy—Minor and Major Examinations, April, 1896.

MINOR EXAMINATION.

Examiner—B. M. Canniff. Time allowed, two hours.

MATERIA MEDICA.

1. (a) Give names of seeds official in the B.P.; (b) Source, natural order, and habitat.
2. Calumba: (a) Give source; (b) Natural order; (c) Habitat and part used; (d) Medicinal properties, use, and dose.
3. (a) What is Camphor? and give its source; (b) Give a short description of how it is obtained.
- (c) Name the different varieties and form.
- (d) Medicinal properties and dose.
3. (a) What is the source of Phenol? (b) Give chief adulterant; (c) How many varieties and names? (d) Give medicinal properties and uses.
6. Rhubarb: (a) Give source; (b) Natural order; (c) Habitat.
- (d) Name different varieties.
- (e) State how you would select good from inferior.
- (f) Give its medicinal properties.
6. Give source of quinine, strychnine, morphine, citric acid, tartaric acid, gallic acid.
7. What are syrup decoctions, infusions, ointments, and tinctures?
8. Give common names for cinchona cortex, glycyrrhiza, hæmatoxyli lignum, caryophyllum, capsicum, faratracum, digitalis.
- 9 and 10, Oral

PRESCRIPTIONS.

Examiner—L. W. LEITHHEAD. Time allowed, two hours.

1. How would you prepare the following prescriptions?



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Block, Roman,
Ornamental, Fancy,
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LETTERS,

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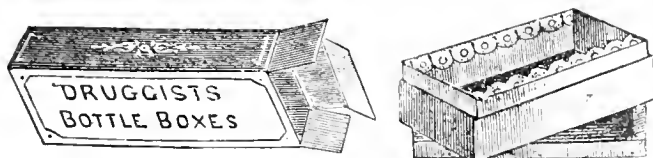
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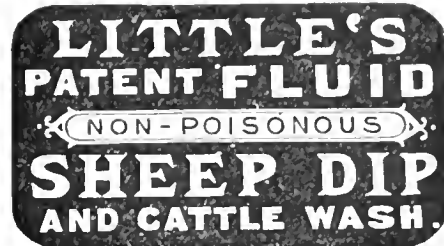


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For the Destruction of Ticks, Lice, Mange, and
all Insects upon Sheep, Horses, Cattle,
Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin,
making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion
Experimental Farms at Ottawa and Brandon, at the Ontario Industrial
Farm, Guelph, and by all the principal Breeders in the Dominion; and
is pronounced to be the cheapest and most effective remedy on the market.

17 Gold, Silver, and other Prize Medals have been awarded to
"Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at \$1.00. Is wanted by every Farmer and Breeder
in the Dominion.

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Sole Agent for the Dominion.

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A Highly Concentrated Fluid for Checking and Preventing
Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Gov-
ernment, "Little's Soluble Phenyle" was proved to be the best Disin-
fectant, being successfully active at 2 per cent., whilst that which ranked
second required 7 per cent., and many Disinfectants, at 50 per cent.,
proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers
and all Contagious and Infectious Diseases, and will neutralize any bad
smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the
Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all
parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and \$1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted
by every Physician, Householder, and Public Institution in the Dominion.

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ELLIOT'S "B" PARCHMENT PAPER

is one of the articles to be considered in the practice of "elegant pharmacy," as it furnishes the finest transparent wrappers for bottles, packages, etc. It must be seen and tried to be appreciated. We send samples.

ELLIOT'S PARCHMENT POWDER PAPERS

are the best for hygroscopic powders and all other powders. The following prices show they are the cheapest:— Put up in Neat Boxes of 500 Sheets.

No.	Rm.	No.	Rm.
22 For Magnesia and general use,		31 Large Seidlitz, Blue, 6 x 6,	\$0.50
White, 6 x 8	\$0.65	40 Powder Papers, White, 2 3/4 x 4,	25
28 Regular Seidlitz, White, 4 1/2 x 5 3/4,	40	41 Powder " " 3 x 4 1/2,	20
29 Regular " Blue, 4 1/2 x 5 3/4,	40	42 Powder " " 2 3/4 x 3 1/4,	25
30 Large " White, 6 x 6,	50	43 Powder " " 3 3/4 x 4 1/2,	25

SEND FOR SAMPLES. Elliot's Parchments are for sale by the leading jobbers. We also make heavy Parchment for Sticky Fly Paper, and Druggists Pure Tin Foil.

A. G. ELLIOT & CO.,

PHILADELPHIA.

If you want to sell the best, handle

MAJOR'S CEMENT

CHEAP, QUICK, AND CERTAIN.

Repairs China, Glassware, Meerscham, Bric-a-Brac, to put on cloth, corn and bunion plasters; to hold a bandage on a wound or sore finger. 15c., 25c.

Major's Rubber Cement, 2-oz. bottle, or in collapsible tubes, for repairing rubber boots and shoes, bicycle tires, rubber garments, silk umbrellas, etc. 15c.

Major's Leather Cement repairs boots and shoes, garments and umbrellas of all kinds of material except rubber, applied same as on leather goods. 15c.

Major's Liquid Glue repairs furniture, books. 10c.

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Sole agents for the Dominion. MONTREAL, Canada

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Tooth and Nail

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Brush Manufacturers

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Sovereign . . Lime Fruit Juice

Is the Strongest, Purest, and of Finest Flavor

We are the largest refiners of LIME JUICE
in America, and solicit enquiries.

For Sale in Barrels, Demijohns, and twenty-four ounce Bottles
by wholesale in

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SIMSON BROS. & CO., Wholesale Druggists

HALIFAX, N.S.



Sick Men Smile



after trying the one
great sure-to-help,
pleasant, and sus-
taining strengthener.

Wilson's Invalids' Port

The big bracing tonic.

Physicians swear by it—Sick men
recover by it.

For Sale Everywhere.

75C. PER QUART BOTTLE

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Genuine Antikamnia Preparations

ANTIKAMNIA POWDERED.

ANTIKAMNIA TABLETS,

(1 gr., 2 gr., 3 gr., 5 gr. or 10 gr. each.)

ANTIKAMNIA and CODEINE TABLETS,

(1 1/4 gr. Antikamnia, 1/4 gr. Sulph. Codeine.)

ANTIKAMNIA and QUININE TABLETS,

(2 1/2 gr. Antikamnia, 2 1/2 gr. Sulph. Quinine.)

ANTIKAMNIA and SALOL TABLETS,

(2 1/2 gr. Antikamnia, 2 1/2 gr. Salol.)

ANTIKAMNIA, QUININE and SALOL TABLETS,

(2 gr. Antikamnia, 2 gr. Sulph. Quinine, 1 gr. Salol.)



Without above Monograms None are Genuine.

These preparations are made solely by us and are put up
in 1-oz. packages only.

NEVER IN BULK.

Trade supplied by all jobbing houses in the United States, Canada,
Mexico, South and Central America.

British & Colonial Depot, 46 Holborn Viaduct, London, E. C., Eng.

The Antikamnia Chemical Company,

Price List on Application.

ST. LOUIS, MO., U. S. A.

R. Asafetida xxiij gr.
Sapo xii gr.
Fiat pil xii.
R. Amygd. dule iv dr.
Acacias i dr.
Sacch. Alb. ii dr.
Aq. ad viii oz.
M. et fiat mist.

2. Is the following prescription incompatible? If so, explain reaction. Give common name for such a combination.

R. Hyd. Subchlor xii gr.
Aq. Calceiad iv oz.
Misce.

3. Give adult doses of the following :
Ext. Belladonnae, Ext. Belladonnae Alch.,
Ext. Nucis Vomicae, Atropine, Cocaine,
Hydrochlor., Codeina, Hydrarg. Subchlor.,
Hydrarg. Perchlor., Aloin.

4. Give full Latin for following abbreviations and the English translations : aa add Aq., Bull., Colat., Colent., c. m.s., Coch. Parv., Col. om. hor.

5. How much Quinine Sulphate in grains would be in each tablespoonful of the following mixture ?

R. Quinine Sulph i.o
Ac. Sulph. dil q.s.
Aqua 30.0
Misce et sig. One tablespoonful at bedtime.

6. Write a prescription for twelve pills, each pill to represent

Strych. Sulph $\frac{1}{4}$ gr.
Sodii Arsen $\frac{30}{100}$ gr.
Ext. Cannab. Ind $\frac{1}{4}$ gr.
Misce Ext. Bellard $\frac{1}{4}$ gr.

Translate into English

R. Vin. Antimonialis Guttas vin deciam.
Liquoris Ammonii Acetatis semiunciam.
Aq. Cinnamoni unciam.
Misce et ft. haust, statim sumend.

8. On being handed the following prescription, state your mode of procedure :

R. Tr. Hyoseyami iii dr.
Potass. Cit ss dr.
Aq. ad i oz.
Ft. haust sig. Give at bedtime.

PHARMACY.

Examiner—L. W. LEITHHEAD. Time allowed, two hours.

1. State mode of preparation, giving strength, doses, and properties of Syr. Ferri Iodid B.P.

2. Name the principal preparations of Opium, giving strength and doses.

3. Name antidotes in case of poisoning by Strychnia, Oxalic Acid, Hydrocyanic Acid, and Morphia.

4. How many minims in an imperial gallon? How many Troy grains in an Avoirdupois pound?

5. What is the proportion of active ingredient contained in one fluid ounce of each of the following preparations : Accutum Cantharides, Aqua Laurocerasi, Liquor Atropinae Sulphatis, Tr. Belladonnae, Lin. Aconiti, Spts. Camphorae?

3. Dover's Powder contains 10 per cent. P. Ipecac, 10 per cent. P. Opium,

80 per cent. P. Potass. Sulphate. Write the formulas in parts by weights for 4 ounces.

7. How much commercial alcohol 95 per cent. will be required to make an imperial pint of proof spirits?

8. Why is it necessary to use distilled water in preparing a solution of Nitrate of Silver?

CHEMISTRY.

Examiner—L. W. LEITHHEAD. Time allowed, two hours.

1. How would you prepare moist Peroxide of Iron? How does the Hydrate act as antidote to Arsenic?

2. Give tests for Sulphuric, Nitric, Hydrochloric, Carbolic, and Acetic Acids.

3. Describe the mode for preparing Ether. What relation does Ether bear to

(b) Show by chemical equation the nature of the reaction between the first two ingredients.

(c) Complete the prescription for 50 doses, giving directions for taking, and let each dose represent 160 gr. Acid Arsenios.

R. Ferri Sulph.
Pot. Carb.
Acid Arsenios.
Aloin.

2. Translate into full Latin

White Soap $\frac{1}{2}$ oz.
Camphor 3 dr.

Dissolve in twenty ounces of rectified Spirits of Wine, in a glass mortar slightly warmed. While still warm, filter, then add.

3. Give full Latin for the following prescription :

R Hyd. Ox. Rub i gr.
Opil $\frac{3}{4}$ gr.
Caryophyl Ol i gr.

Let a pill be made, to be taken at bedtime during the week.

4. State clearly and in detail how you would make 12 suppositories, each to contain

Iodine ii gr.
Potassii Iod iss gr.

5. State what changes might occur in the following mixture, and would you consider it safe to dispense such mixture without consulting the prescriber? Give the chemical equation for the reaction in the second mixture :

(1) Pot. Chlorat ii dr.
Syr. Ferri Iodidi iv dr.
Vin Antim ss dr.
Ether Chlor ii dr.
Aq. ad viii oz.

(2) Potassii Iodid iss dr.
R. Ferri Perchlor iv dr.
Aqua ad vi oz.

6. Show how you find the weights of 30 minims of each of the following : Croton Oil, Chloroform, and Turpentine.

7. How would you dispense the following prescription?

R Phosphori $\frac{3}{4}$ gr.
Ferri Redact ii gr.
M. Ft. pil. mitte xii. Una t.d. sumendus.

Translate directions into correct English.

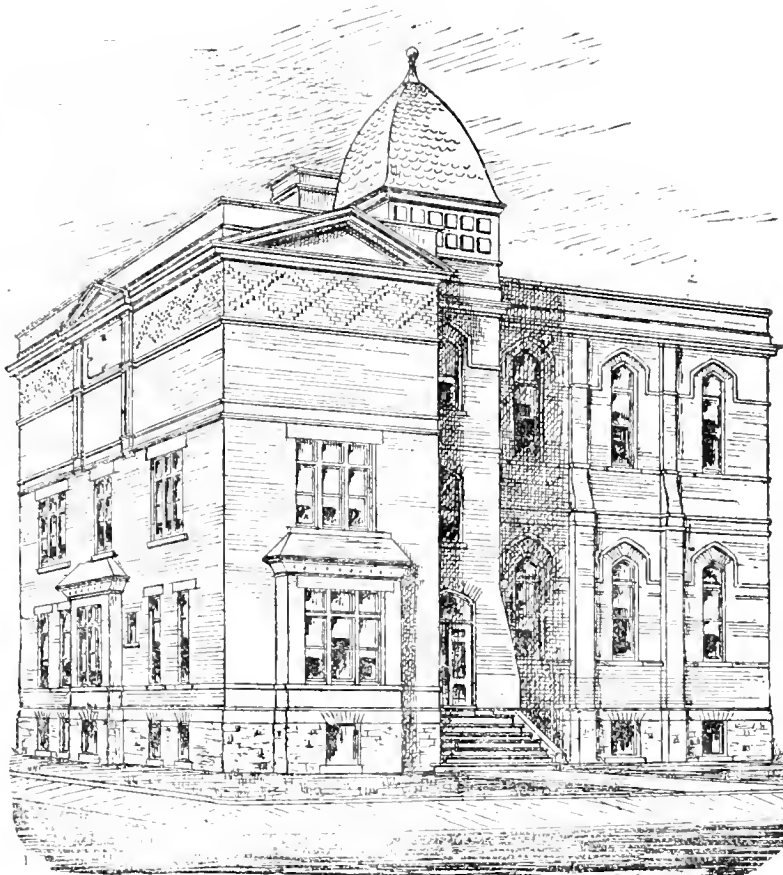
8. State what changes, if any, that might occur in the following prescription :

R. Potass. Tart iv dr.
Tr. Camph. Co vi dr.
Vin Ipecac i dr.
Vin Antim ii dr.
Syr. Limonis ii oz.
Aq. ad vi oz.
M. Fiat mistura.

MATERIA MEDICA.

Examiner—E. M. CANNIFF. Time, two hours.

1. Anisi Stellati Fructus : (a) Give common name ; (b) Describe.



MANITOBA UNIVERSITY,
Where Pharmaceutical Examinations are held.

alcohol? What are the specific gravities of Ether and Ether Purus B.P.?

4. What chemical antidote would be applicable in cases of poisoning by Tartar Emetic, Corrosive Sublimate, Arsenic, and Lunar Caustic?

5. How would you distinguish between Calomel and Chloride of Silver?

6. Define graphic, empirical, and rational formulas. Give examples of each.

MAJOR EXAMINATIONS.

PRESCRIPTIONS.

Examiner—W. L. LEITHHEAD. Time allowed, two hours.

1. (a) How would you dispense the following so as to prevent oxidation before administration?

- (c) Name adulterations, and how detected.
- (d) What part of the fruit yields the largest per cent. of volatile oil?
- (e) What part of the fruit yields the largest per cent. of fixed oil?
2. Name the official drugs of the Nat. Order Compositæ.
- Name four non-official drugs of same order indigenous to Canada, and frequently used in medicine.
3. Copaiba: (a) Definition; (b) Nat. ord.; (c) Source; (d) Habitat; (e) How obtained; (f) Varieties in order of value; (g) Properties; (h) Adulterations, and mode of detection.
4. Give in tabular form, source, nat. order, habitat, part used and medicinal properties of: Aconite, Senega, Cascara Sagrada, Belladonna, Buchu, Digitalis, Ergot, Catechu, Cantharis, and Oleum Morrhuæ.
5. Give in two or three words the medical properties of the following: Nux Vomica, Gentian, Hyoscyamus, Creasotum, Elaterium, Valerian, Strophanthus, Cannabis Indica, Ipecac, and Camphora.
6. Define the following Therapeutical terms and give two examples of each: Expectorants, Diuretics, Antiperiodics, Antipyretics, Pustulants.
7. From what are the following obtained, giving dose: Codeine, Eserine, Pilocarpine, Atropine, Thymol, Spartine, Menthol, Veratrine, and Emetine.
- 8, 9, and 10. Oral.

PHARMACY.

Examiner—L. W. LEITHHEAD. Time allowed, two hours.

1. (a) Spts. Etheris Nitrosi is a spiritous solution containing what? (b) Give process for preparing it, with chemical equation. (c) Give specific gravity and tests, incompatibles. (d) Medicinal properties and dose.
2. What weight of Acid Sulphuric, Liq. Plumbi Subacet., Spts. Tenuior and syrup, might be put into a bottle which holds exactly the imperial pint of water at standard temperature and pressure?
3. Write a formula for an imperial pint of Tinct. Nucis Vomica B.P., using an equivalent quantity of commercial alcohol 95 per cent. instead of the spirit ordered.
4. Name the liquids employed in exhausting the solid materials in the manufacture of the following extracts: Ext. Aloes Barbadosis, Ext. Ergotæ Liquidum, Ext. Nucis Vomica, Ext. Opii, Ext. Rhei.
5. Give the proportions of Ergot to each of its official preparations, and state the best mode of preventing the deterioration of the crude drug.
6. Name the ingredients in Emplastrum Menthol, Mistura, Olei Ricini, Pulvis Jalapæ Compositus, Pilula Colocynthis Composita, Pilula Phosphori, Tinctura Chloroformi et Morphinæ.
7. Give characteristics and maximum dose of the following substances: Acetanilidum, Homatropinas, Hydrobromas, Paraldehydum, Phenacetium, Phenazonum, Picrotoxinum, Sulphonah.

BOTANY.

Examiner—L. W. LEITHHEAD. Time allowed, two hours.

1. Describe the structure of a Maple Seed; name its parts.
2. Name three principal kinds of roots, and three of subterranean stems or branches; giving instances of each from indigenous plants.
3. Give the growing parts of an exogenous tree. What is the Cambium layer? How does Heartwood differ from Sapwood?
4. Describe a Rhizome Tuber bulb, and say, if they belong to the root or stem, which are Rheum, Jalapæ, Sweet Potato, Onion.
5. Name the parts of a flower. What office is performed by the ovule? Name two kinds of ovules.
6. What do plants feed on?
7. Trace the growth of an annual plant from the sowing of the seed to the ripening of the fruit.
8. Give examples of the plants belonging to the following natural orders: Liliaceæ, Leguminosæ, Renunculaceæ. Give the characters of these orders.

CHEMISTRY.

Examiner—L. W. LEITHHEAD. Time allowed, two hours.

1. How much Lithium Carbonate is required to neutralize one drachm Salicylic Acid?
2. How much B.P. Hydrocyanic Acid can be made from one kilogram of Potassium Ferrocyanide? Show work.
3. How would you detect Perchloride of Mercury in Calomel; and the Red Iodide in mercurous Iodides; how could salts so contaminated be purified?
4. In what state does Glycerine exist in fats and oils. How is it obtained? State its properties and pharmaceutical uses.
5. What would be the effect of adding Liquor Potassia in excess to aqueous solution of the following salts: (a) Sulphate of Iron; (b) Perchloride of Iron; (c) Corrosive Sublimate; (d) Sulphate of Copper; (e) Nitrate of Silver.
6. State the composition of Bleaching powder. Describe the mode of manufacture.

Peau D'Espagne.

Peau D'Espagne, or Spanish skin, is nothing more than highly perfumed leather. Good and sound pieces of wash leather are steeped in a mixture of ottos, in which are dissolved some odoriferous gum resins. Thus: Otto of neroli, rose, sandal, of each one-half an ounce; otto of lavender, verbenæ, bergamot, of each one-quarter ounce; otto of cloves and cinnamon, of each two drachms; with any others thought fit. In this mixture dissolve about two ounces of benzoin; now place the skin to steep in it for a day or so, then hang it over a line to dry. A paste is now to be made by rubbing in a mortar one drachm of civet with one drachm of grain musk, and enough solu-

tion of gum acacia or tragacanth to give it a spreading consistence; a little of any of the ottos that may be left from the steep stirred in with the civet, etc., greatly assists in making the whole of an equal body; the skin, being cut up into pieces of about four inches square, is then to be spread over plaster fashion with the last-named compost; two pieces, being put together, having the civet plaster inside them, are then to be placed between sheets of paper, weighted or pressed, and left to dry thus for a week; finally each double skin, now called Peau D'Espagne, is to be enveloped in some pretty silk or satin, and finished off to the taste of the vendor. Skin or leather thus prepared will evolve a pleasant odor for years.

When first introduced this skin used to be sold for what would now be thought fabulous prices.

The New System.

The following druggists have been prompt in adopting the newest and best method of encouraging a cash trade in their stores. Each cash customer receives a printed rebate check issued by the latest National Cash Register. The check is dated, the amount of the purchase printed on it, with a request like this: "Return \$5 in checks and get 25 cents in trade." The register prints a detailed list of the sales as well as giving the day's total sales. Also keeps accurate account of all charges, collections, and disbursements, and so prevents many mistakes. When may we add your name to the list?

H. F. McCarthy, Ottawa.
C. H. Couen, Toronto.
D. M. Waters, Belleville.
W. S. Detlor, Napanee.
R. S. Shillington, Ottawa.
Dickson Drug Co., Jas. Findlay, Pembroke.
John T. Wait, Arnprior.
Jos. Clark, H. H. Hough, Renfrew.
W. H. Medley, Kingston.
M. Patterson, Almonte.
W. G. Smith, Guelph.
R. B. W. Robinson, Ottawa.

Quick Method of Making Mercurial Ointment.

Ettore Barbi gives in *Il Farmacista Italiano* a formula by which he says a 1 in 2 ointment of mercury can soon be made. A few grammes of decoction of saponaria root are put into a strong jar or bottle, 500 grammes of mercury are added, and the whole shaken until globules of the metal are no longer visible. The emulsified mercury is poured into a mortar containing 400 grammes of lard and 100 grammes of white wax melted together, and on triturating the metal is soon taken up, and a smooth and perfect ointment results.—*Pharmaceutical Journal*.

Hippocrates wrote his principal medical treatises on the theory of disease B.C. 422.

Pill and Powder BOXES

We are the headquarters in Canada for every line of Druggists' Boxes, Labelled or Unlabelled.

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Our Impervious Paper Boxes are the best on the market.

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Pepsin
Gum?**

It is the Gum the others are selling.

It is admitted to be the best Pepsin Gum made in Canada.

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C. R. SOMERVILLE

LONDON, ONT.

Highest Grade

Digestive Ferments.

We offer a line of High Grade Digestive Ferments of our own manufacture, which we believe is superior to any similar line of goods now on the market. The prices given are net without discount.

PEPSIN AND PREPARATIONS.

Dike's Pepsin, 1-3000, U.S. Ph.—The advantages of this over all other Pepsins are sufficiently well known to make further comment unnecessary. 50c. per oz., \$7.20 per lb.

Dike's Essence of Pepsin.—This preparation will be found very much stronger in both digestive and milk curdling properties than any similar preparation on the market. In 8-oz. bottles at \$5 per dozen.

Saccharated Pepsin, 1-300, U.S. Ph.—Much of the Saccharated Pepsin sold corresponds to the test of the *old* U.S. Ph. of 1880. Ours will be found to be exactly one-tenth the strength of Dike's Pepsin, and to conform in all respects to the present U.S. Ph. standard of 1890. \$1.00 per pound.

Glycerole of Pepsin.—A 10% glycerine solution of pure Pepsin. Very active and convenient for the dispenser and manufacturer. Each minim represents one grain of Saccharated Pepsin and will digest 300 grains of coagulated albumen. \$1.00 per lb.

Lactinated Pepsin. A compound powder containing in proper proportions all the digestive ferments of the alimentary canal, including Pepsin (proteolytic); Pancreatic Diastase (starch converting); Steapsin (emulsifying and fat splitting); and Trypsin (proteolytic); combined with small proportions of hydrochloric and lactic acids. 25c. per oz., \$3.50 lb.

Elixir of Lactinated Pepsin.—\$7.00 per dozen lbs., \$3.60 per gallon.

PANCREATIN AND PREPARATIONS.

Pancreatin (Stearns'). A very high grade Pancreatic extract containing the essential digestive ferments, Trypsin, Diastase (pancreatic), Steapsin, and the milk curdling ferment. It, therefore, has the power of digesting proteids, converting starch into maltose, isomaltose, and dextrose; emulsifying and splitting up fats, and curdling and digesting milk. 50c. per oz., \$7.20 per lb.

Stearns' Essence of Pancreatin.—This preparation represents in a high degree all the properties of fresh Pancreatic juice. \$5.00 per dozen 8-oz. bottles.

Saccharated Pancreatin (25% pure Pancreatin).—20c. per oz., \$2.00 per pound.

Glycerole Pancreatin (10% pure Pancreatin).—Per lb., \$1.00.

DIASTASE.

Diastase-Stearns (Pancreatic Diastase).—The isolated amylolytic ferment of the Pancreatic juice. Sir William Roberts, M.D., F.R.S., the most eminent living authority on digestive ferments, in his book on "Digestion and Diet," accords Pancreatic Diastase the highest rank among the amylolytic ferments, whether of animal or vegetable origin. \$6.00 per dozen flasks, each containing 40 pilloids of 2½ grains.

Essence Diastase-Stearns.—A delicious cordial containing in each teaspoonful two grains of "Diastase-Stearns." For the treatment of amyloseous dyspepsia, in which bread, cake, pancakes, as well as potatoes, peas, beans, and other substances containing starch, readily ferment in the alimentary canal. In 8-oz. vials at \$8.00 per dozen.

RENNIN.

Rennin. The isolated milk curdling ferment. A most concentrated product, each grain curdling 32 fluid ounces of milk. Useful for manufacturing Liquid Rennet for making junket, whey, etc. 50c. per oz., \$7.20 per lb.

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Manufacturing Pharmacists,

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WINDSOR, ONT.

Wine of the Extract of Cod Liver

Sold by all first-class
Chemists and Druggists

CHEVRIER

General Depot:—PARIS,
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This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis, and all diseases of the Chest.

Wine of the Extract of Cod Liver with Creosote

General Depot:—PARIS,
21, Faubourg Montmartre, 21

CHEVRIER

Sold by all first-class
Chemists and Druggists

The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

Radlauer's Somnal

AETHYL-CHLORALURETHAN

(REGISTERED)

THE NEWEST AND MOST EFFICIENT SOPORIFIC REMEDY

Taken in doses of 32 grains, or half a teaspoonful, in milk, ale, or cognac, produces in half an hour a quiet refreshing sleep, lasting from six to eight hours, with no unpleasant after effects. The effects of SOMNAL are more pleasant than those of Chloral Hydrate and Morphia. Experiments made in the Town Hospitals, Moabit and Friedrichshain, Königliche Charité and Königliche Universitäts Poliklinik, Berlin, have shown that SOMNAL does not accelerate the pulse and does not upset the stomach. SOMNAL is especially recommended for Nervous Insomnia, Neurasthenia, Spinal Complaints, Infectious Diseases, Paralysis, Melancholia, Hysteria, Morphinismus, and Diabetes. The low price of SOMNAL enables its use in the poor and workmen's practice and in hospitals

Radlauer's Antinervin

(SALICYLE BROMANILIDE)

In the form of Powder, the most efficacious Antipyretic,
Antineuralgic, and Antinervine

ANTINERVIN replaces and surpasses Antipyrin, has no hurtful secondary effects, and is cheaper. Taken in doses of 8 grains four times a day, it is an excellent remedy for Feverish, Catarrhal, and Rheumatic Pains.

ANTINERVIN is of especial service in cases of Influenza, Neuralgia, Asthma, Tuberculose, Yellow Fever, Malaria, Migraine, Gout, Rheumatism in the Joints, Diptheritis, and other typical Fevers

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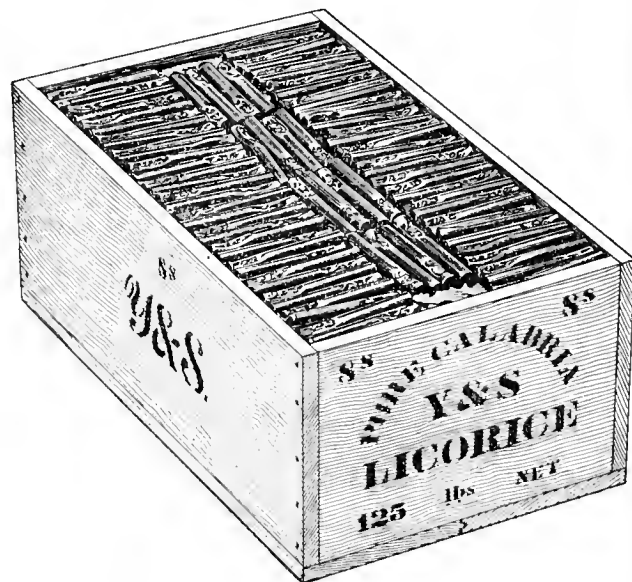
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Retail Druggist

◎ **W**E put up our Y & S Licorice in cases of 125, 50 and 25 lbs. bulk (loose, in leaves), 4's, 6's, 8's, 12's, and 16's to pound. Will sell rapidly if displayed prominently in your show windows, and will insure you large profits.



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Brooklyn, N.Y., U.S.A.

Correspondence.

The Editor does not hold himself responsible for the opinions of correspondents.
Correspondents must in all cases send name and address, not necessarily for publication.

Alcohol. \$3.60 a Gallon.

Editor CANADIAN DRUGGIST:

Fellow-druggists, do you want it?

How much would it save you in a year?

Why don't you have it?

These are three important questions which are worthy of every druggist's consideration.

To the first there is but one answer.

The second: If you use two barrels a year, and pay \$4.20 for it, you would save \$48 each year on the cost. If it were all retained in tinctures and similar lines the whole \$48 would be net profit, as the prices of these articles would not alter; but at the worst you would probably clear \$25 a year extra.

The third point—why don't you have it?

Because our jobbers pay \$1.15 for their alcohol, and \$2.80 $\frac{1}{2}$ duty net cash. Now there is no doubt that the government needs this money, and perhaps they might as well get it on alcohol as anything else. But our jobbers can buy the same alcohol in the United States for 35 cents, and the reason they don't do it is that the import duty is \$2.25 a proof gallon, equal to \$3.71 $\frac{1}{4}$ per gallon on alcohol such as you buy. The difference between the two rates of duty is 90 $\frac{3}{4}$ cents, or over 259 per cent. on the cost in the United States. This 259 per cent. is the rate of protection that we wealthy druggists pay to support our poverty-stricken distillers.

Is this fair to us?

Is it right?

Has the government any right to impose such a tax on one class of citizens for the benefit of another class?

Are you going to stand it without protest?

Can you invest an hour, or a whole day, to better advantage than in securing for yourself \$25 a year net profit?

If the government would impose an import duty equal to the excise duty of \$2.80 $\frac{1}{2}$ per gallon and 25 per cent. *ad valorem*, you could buy alcohol the following week for \$3.60 a gallon, and begin to save that \$25 at once.

Under this system the government would secure not one cent less in revenue than at present, and if the alcohol were actually imported they would get the 25 per cent. additional.

This brings us to another point not in our original list of queries.

Who constitute the government?

How do they get there?

Now you see our point. If every druggist in Canada would spend an hour in writing to or interviewing his favored candidate, we would have in our next session of parliament a majority of members pledged to give the druggists justice,

and we would get it. Nay, more, if half or even a third of the druggists in Ontario alone would take this step, the end would be attained. Is this to be despised in these days of cut rates and departmental stores?

If not, will you do it?

It won't do for you to read this letter and say to yourself, "Yes, that's so; it is an outrage, and must be stopped," and then lay your paper down and do nothing. You will never see that \$25 again unless you work for it. See your member-elect, or write him, and get him pledged to support the movement in the House, no matter which side it emanates from. If we can get enough members in the House pledged to support us, the government will take it up, and there will not be the least trouble about it.

Will you spend your hour at this?

If so, do it now, and success is assured.

Fraternally yours,

ANDERSON & NELLIS.

London, Ont.

Quebec Pharmaceutical Association.

The semi-annual examinations of the Pharmaceutical Association of the Province of Quebec for major and minor candidates were held in the College of Pharmacy, Montreal, commencing on Tuesday, April 14th, and closing on Friday, the 18th. Twenty-five candidates presented themselves for the major examination and twenty-three for the minor. Of these the following, named in order of merit, passed: As "Licentiates of Pharmacy," W. A. Smallwood, Jas. A. Gillespie, E. A. Ranson, J. Victor Levesque, A. Brillon, J. T. Gaudet, C. M. DuGay, J. L. Roberge, Joseph Bontin, J. J. Power, P. Emile Chevalier, J. A. Labranche, J. A. F. Bertrand, A. Veilleux, and A. C. Roy. As "Certified Clerks," Willie Bernard, R. J. Lunny, James Francum, C. S. Webb, and E. Jolicour. Owing to Messrs. Smallwood and Bernard being ineligible to compete for the gold medal and minor prize respectively, Mr. Jas. A. Gillespie obtains the gold medal and Mr. R. J. Lunny the minor prize.

The candidates were subjected to a severe written and oral examination in materia medica, chemistry, botany, practical dispensing, reading of prescriptions, and weights and measures.

The examiners were Messrs. S. LaChance, A. E. DuBerger, R. W. Williams, W. H. Chapman, and J. R. Parkin.

The next examination will be held in Laval University, Quebec, about the middle of October.

ACOKANFILKIN. Aglucoside obtained from the *Acokanthera Schimperii*, forming colorless crystals, melting at 186° C., slowly soluble in cold, but readily in hot water. The therapeutic properties of this glucoside are said to be similar to those of strophanthin.—*Phar. Post.*

The Acorns of Business.

In every line of business, no matter whether conducted on a large or small scale, it is the little things that count. The little expenses, the little wages, the little economies, are the ones that turn the balance of accounts, either for profit or loss, and it is these things that need the closest attention. The larger, more important details of every business are carefully looked after; there is very little chance for neglect, carelessness, or oversight.

The workman who spoils a costly piece of machinery, or causes a loss of any considerable account, is held responsible, and is generally very careful in this respect, but in the little things he is not as prompt in exercising care and economy, and these little things are looked upon as of no consequence, and as having no real value.

We have it asserted by a man who, beginning on barely nothing, succeeded in building up a large and profitable business, and retiring with a considerable fortune, when asked how he had managed, what was the secret of his success, replied:

"By saving what other people wasted: looking after the small things and seeing that nothing was thrown away or cast aside as being too small or insignificant to be of any value. A few cents here and a few cents there made up quite a sum in the course of the year, and it was by paying careful attention to the little details, by looking after the cents, that I made my dollars."

Camphor.

In connection with the increased demand and increased prices asked for camphor, the British North Borneo *Herald* states that nearly twenty years ago Formosa camphor was quoted at \$20 per picul, but from various causes, chiefly owing to the invention of smokeless gunpowder, in the manufacture of which it is largely used, the price has now risen to \$79. Inquiries were made by the director of Kew Gardens of Sir Frederick Abel respecting the truth of this statement, and the reply is printed in the *Kew Gardens Bulletin*. Sir Frederick Abel wrote: "Any increase of demand, involving a rise in the price of camphor, is not due to its application as a constituent of smokeless powder. That material was used in the earliest days of the manufacture of a successful smokeless powder for artillery and small arms; but its employment was soon demonstrated to be attended with serious practical disadvantages, and its application for this purpose can, therefore, not be said to have been other than experimental, and of no great importance even at that time, as affecting the market value of camphor. This substance has, however, been used extensively for many years past, and no doubt in continually increasing quantities, for the conversion of collodion cotton into the material known as celluloid."—*Oil and Colorman Journal.*

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

MAY 15TH, 1896.

A Grievance.

The agreement entered into by the executive committee of the Wholesale Druggists and Patent Medicine Manufacturers' Association, and that of the Ontario Society of Retail Druggists, is, we believe, being carried out in good faith, with every indication of a successful issue. Where distrust at one time existed confidence now reigns, and a cordial and fraternal spirit pervades the trade generally. The wholesale dealers fully recognize the advantage gained in the larger volume of goods distributed by them, the patent medicine manufacturer has fewer accounts and decreased expenses, while the retailer feels that he has the co-operation and good will of the wholesale trade. While, however, everything is going on quite as satisfactorily as could be expected, with any organization which has been so short a time in operation, yet it must be borne in mind by all parties that grievances or apparent grievances will arise which require consideration and remedy.

The retailer, on his part, should remember that in the handling of patent medicines, or goods of a similar nature, the wholesaler should not be held responsible for any promises or inducements held out by too-pushing salesmen of these goods. If a salesman, in order to increase his sales, makes promises or holds out inducements which upon reflection it will be seen cannot be carried out by the wholesale house through whom the goods are shipped, that salesman or the firm employing him should alone be held responsible for his actions. But we find frequently that the retail druggist, not always being able to dispose of the stock purchased, endeavors to place the responsibility on the house through which the goods were placed, basing his claim, it may be, on the unfulfilled promises of the selling agent, or on the plea that the goods did not turn out as represented. This is both unreasonable and unbusiness-like. The retailer, when purchasing, certainly should understand that any transaction between himself and the house represented could have no binding effect on the third party through whom the goods were shipped, except those speci-

fied in black and white, or any order turned over to them, and any wholesale house is quite justified in refusing to take back or exchange any goods which have been sold in this way.

Editorial Notes.

THE Philadelphia College of Pharmacy celebrated its seventy-fifth anniversary by a banquet on April 22nd.

THE death is announced of Dr. Charles O. Curtman, of St. Louis, Mo., a prominent member of the American Pharmaceutical Association, and an able and frequent contributor to the pharmaceutical journals.

THE Board of Customs has decided that the duty on filter paper, whether cut or uncut, is 25 per cent., overruling the department decision, that when imported in sheet it should be 25 per cent., and when cut to shape at 35 per cent.

THE United States Customs officers at St. Albans, Vt., have arrested two men, W. E. Hugh, of St. Johns, Que., and H. Backus, of Bedford, Que., on a charge of smuggling phenacetine across the border. When caught Hugh had about two pounds of the drug on his person, and Backus twenty-five pounds. They were both released under bonds.

THE decision of the lower court in the case of the California Fig Syrup Company vs. Frederick Stearns & Co. has been affirmed by Judge Taft in the New York courts, holding that the term Syrup of Figs is a descriptive one, when applied to a medicine, and indicates the active medicinal quality of the fig, and that therefore no one can acquire the exclusive right to use the same as a trade mark to designate such medicine.

THE manufacture of cocoanut oil is to be one of the new Australian staple industries. Messrs. Lever Bros., of Sunlight Soap fame, have now under construction the first cocoanut oil mill in Australia. The establishment is to be one of a very complete and extensive character, capable of turning out several thousand tons of oil and oil cake per annum. Mr. Lever has selected New South Wales for his operations because Sydney is the principal port for the South Seas, whence the oil mainly comes in the form of cocoanuts.

Prosecution Under the Pharmacy Act.

A case which is likely to involve a lengthy legal fight, of great interest to the drug trade, was initiated by the lodging of an information by F. S. Warner on behalf of the Ontario College of Pharmacy against Robert Simpson, proprietor of a departmental store at the corner of Yonge and Queen streets, Toronto, charging him with unlawfully keeping open shop for retailing, dispensing, and compounding poison in contravention of the Pharmacy Act. The College of Pharmacy was represented by its solicitor, Mr. E. T. Malone, the defendant by Mr. C. H. Ritchie, Q.C.

The case was tried before Police Magistrate Denison, at the police court, April 14th. The informant produced three bottles of medicine which were dispensed by Charles P. Lusk, who is in charge of the drug department. The following were the prescriptions:

Mrs. Warner.

R. Liq. Strychnie..... ʒij

Tinct. Strophanthi..... iv

Tinct. Cinchona Co..... ʒiss

Syr. Aurantii..... ʒiss

Aquam Ad..... ʒvi

Sig. Two drachms in water every five hours.
E.C.

Mrs. Warner.

R. Lin. Aconiti.

Lin. Saponis, aa ʒj.

Sig. Apply to face three or four times a day.
G.B.S.

Mrs. Warner.

Lin. Aconiti.

Lin. Belladonnæ.

Lin. Chloroformi.

Tinct. Saponis Co. aa ʒj.

M. Sig. Apply as directed.

A quantity of carbolic acid was also purchased, the amount of the bill was paid to Mr. Lusk, and the money forwarded by him to the cash receiver's desk. The bottle was labelled "R. Simpson," and across the label was the name "Charles P. Lusk, druggist," done with a rubber stamp. The case was in the first place adjourned until the 21st, and again until the 23rd, when it was argued by the respective counsel. The case now goes over until some day next week, when a stated case will be prepared for the High Court, to which it will ultimately be appealed. We have deemed it wiser to refrain from making any extended remarks until after its hearing next week, and will in next issue give the points at issue.

Hemicranin is (*Pharm Zeit.*) a mixture of 5 parts of phenacetine, 1 part of caffeine, and 2 parts citric acid.

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DIRECTIONS.
Place one of the Felts upon a dish or plate; keep wet with water. Use only enough water to soak the Felt. Flies will drink the poisoned water off the Felt and die immediately.
Placez un de ces Feutres au-dessus d'un plat ou assiette; tenez-le humide avec de l'eau. Utilisez seulement assez d'eau pour tremper le Felt. Les mouches boiront l'eau empoisonnée, et mourront immédiatement.

CAUTION.—Should the liquid be swallowed by accident, at once administer in large doses, Lime Water, Flaxseed Tea, or Iron Rust, followed by an emetic and drinks of Milk or Flour and Water.

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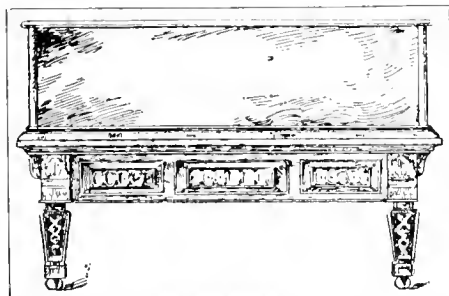
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Roentgen Skiagraphy.*

By EDMUND E. KING, M.D. TOR., L.R.C.P. LONDON,
Surgeon to St. Michael's Hospital; Physician to House
of Providence and Home for Incurables; Pathologist,
Toronto General Hospital.

When the announcement of Herr Doctor Roentgen's wonderful discovery was made in December last, a new scientific epoch was begun. His first communication was made to the Wurzburg Physical and Medical Society, in a paper entitled "A New Kind of Rays." He had taken time to settle many important questions, and was sure of his ground before making any public announcement. He first took his professional colleagues into his confidence, and did not rush into the public press as many of his predecessors in great discoveries had done—he fully satisfied himself that he had a discovery before making it known. Its importance was too great to be long retained by the savants of Wurzburg, however, and within a few days the whole world knew that a hitherto unknown scientist had made a discovery that will revolutionize many ideas scientific. Ever since that time the press, both public and scientific, has been replete with the wonders of the unknown rays. For some time the discovery was looked upon as something too unreal to be seriously thought of; but as the full details became known, and as other investigators began to report their confirmation of the experiments announced, the incredulous had to abandon their position and admit that there really was something new under the sun. To-day all doubts have vanished, and all are pushing forward to increase the applicability of the new ray.

To us, as medical men, it has opened up a great field by perfecting our ability of diagnosis in obscure bone lesions, in the locating of foreign bodies in the limbs, a possibility of making certain of the presence of kidney calculi, in joint lesions, and many other conditions that I cannot mention. We must not expect too much, or we are bound to be disappointed.

The result obtained by the "X" ray is not a sharply defined photograph, but is a shadow picture—a skiagraph. We all know that shadows are more clearly defined by the nearness with which the object is placed to the screen on which

the shadow is projected. More or less space must intervene between the object and the photographic plate in all of these cases, and that must be at the expense of sharpness of definition. Time of exposure is, at present, a very serious drawback to the use of these rays in medical diagnosis, but this is being materially reduced from day to day. The tube becomes heated so rapidly with the current from a coil giving a sufficient spark to produce good results that a much longer time of rest is required before the current can be again turned on. The tube used to produce the results here presented was heated

at the School of Practical Science here of using a bell jar has not proved as useful in medical subjects as it did for other objects, the refraction of the rays dimming the outline of the part. I have found that by surrounding the upper part of the tube with a funnel-shaped piece of tea lead the rays can be concentrated without the dimming effect on the border line.

Though the results attained by these rays are familiar to everyone, the means used are possibly not so well known. An article by Prof. H. Schubert, in *The Monist*, deals very nicely with the previous history of this new physical agent:

In the year 1789 the electric current was discovered by Galvani, of Bologna; but it was not until several years later that its most important properties, at least as distinguished from frictional electricity, were disclosed by Volta. Although galvanic batteries, as a means of producing electric currents, were studied and perfected in the next few decades, three great discoveries had yet to be made in the province of electricity before the new agent could attain the importance in civilized life which it to day occupies, and before theoretical physics could investigate more closely its nature and character. These three discoveries were as follows:

(1) In 1820 Oerstedt, of Copenhagen, discovered that an electric current flowing round a magnetic needle deflects the same, and that a magnetic needle rendered insusceptible to the influences of terrestrial magnetism, and free to rotate in any direction, will place itself at right angles to the plane of an electric current surrounding it.

(2) In 1825, Arago, of Paris, discovered that a piece of soft iron, about which a wire connected with a battery has been wound in spirals, is trans-

formed into a magnet and continues in the magnetic condition as long as the circuit remains closed, but is again unmagnetized when the circuit is broken.

(3) In 1831, Faraday, of London, discovered the so-called "induced currents" of electricity. If, he reasoned, the current was a source of magnetizing action, as Arago had discovered, it was possible conversely that a magnet should be the source of a current-producing action. But Faraday found no confirmation of his conjecture. Twenty years later it could



FIG. 1.

in ten seconds to such an extent that it required twenty seconds to cool. The time of keeping the part under exposure is really, therefore, three times that of the actual exposure, but this will be overcome by some form of water jacket surrounding the tube, made of celluloid or aluminium. It would be easily done now if a glass cone could be utilized, but it cannot, as the rays will not pass through glass. Edison has announced a celluloid cup, but the results are not yet known.

The method adopted by the workers

*Read before the Toronto Clinical Society, and reprinted from *The Canadian Practitioner*.

have been decided *à priori*, without experiment, that a magnet *at rest* could not give rise to a current. For that would have violated the law of the conservation of energy, agreeably to which work can be done only provided a like quantity of work has been previously expended in some way. Yet Faraday discovered the law, harmonizing perfectly with the principle of the conservation of energy, that if a magnet be *approached* to a closed spiral circuit it will evoke in the circuit a sudden current lasting only for the moment of approach, but that when the magnet is *drawn away* from the spiral a current in the opposite direction to the first will be momentarily set up therein. Instead of a magnet, a closed circuit carrying a current may be approached and removed, or, instead of the latter, the current in the circuit may be made alternately to appear and disappear, or its strength may be alternately increased and diminished.

Currents thus produced are called "currents of induction," and apparatus designed to generate induced currents, rapidly alternating in direction, by means of common currents, are called "induction-coils." An induction-coil consists (1) of a soft iron core, (2) of a primary wire spiral or helix enveloping the same and receiving an ordinary electric current, and (3) of a secondary wire spiral of thin wire and many turns, enveloping the first. The current sent through the primary spiral magnetizes the iron core (compare the first discovery). The magnetized core then attracts a little iron hammer which is placed before it and regulated by a spring. This movement of the hammer breaks the metallic connection with the primary spiral so that the current is interrupted and the iron core again unmagnetized. The hammer immediately jumps back from the iron core, the current is again set going, and the action described is repeated anew. By this apparatus, thus, we are enabled to make the current in the primary spiral repeatedly and alternately appear and disappear. According to Faraday's laws, now, every appearance of the main current in the primary coil must produce in the secondary coil an induced or "closing current," as it is called, flowing in the opposite

direction, and lasting but for a moment; whilst conversely every disappearance of the current must evoke an induced current flowing in the same direction with the main current, and called the "opening current." Thus are produced in the secondary spiral in quick succession currents which flow in alternately opposite directions. These induced currents are of brief duration, but of enormous tension. Their powerful physiological action on the human body is familiar to every reader.



Fig. 2.

It is to these induction currents, discovered by Faraday in 1831, that we owe all the recent magnificent development of electro-technics. For not only is the art of telephoning based upon induction effects, but the performances of large dynamos, or machines designed to produce, by mechanical work, electrical currents of great intensity and high tension are primarily rendered possible by induction effects.

So much for the induction current which is produced from the Rhumkorff

coil. The coil must be agitated by an electric current, and the voltage must not be too high: twelve volts, passing through a Rhumkorff coil, will produce a voltage of, possibly, 100,000, but of very high potential. This current, on passing through tubes that are exhausted to a greater or less extent, produces phenomena characteristic to the degree of exhaustion. The tubes that were first exhausted, and on which experiments were conducted, were made by Geissler, of Bonn, and named after him. The degree of exhaustion was about 1-400 of an atmosphere. In the two ends of these tubes are soldered platinum terminals called electrodes. On connecting these electrodes with an induction current the enclosed gas, through which the current must pass, is set in a vivid state of incandescence. The point at which the current enters is the positive, or *anode*, and the other the negative, or *cathode*. A bright, narrow fringe is observed at the cathode, and, subsequently, a relatively dark-bluish light, the *glow-light*, or *cathode-light*; whilst at the anode, as also in the largest part of the space intervening between the two electrodes, striae of bright and reddish-yellow light are distinctly visible.

Hittorf, in 1869, carried the degree of rarefaction in these tubes to a more minute degree of density, and substituted platinum plate in place of the platinum wire electrode. The bluish glow-light of the cathode spread, in this greater rarefaction, until it nearly filled the tube.

Crookes carried the rarefaction still further up to one-millionth of an atmosphere, and these tubes are called Crookes tubes, and from these the "X" rays of Roentgen are produced.

It, therefore, gives me a great deal of pleasure in presenting to you, to-night, some negatives I have succeeded in making by these "X" rays.

We all must appreciate very highly the work done at Toronto University and the School of Practical Science in the early part of the year; yet none of it had any particular bearing on the application of the discovery to medical or surgical investigation. They reduced the time of exposure, and demonstrated the reflection of the rays, etc., which are of great aid

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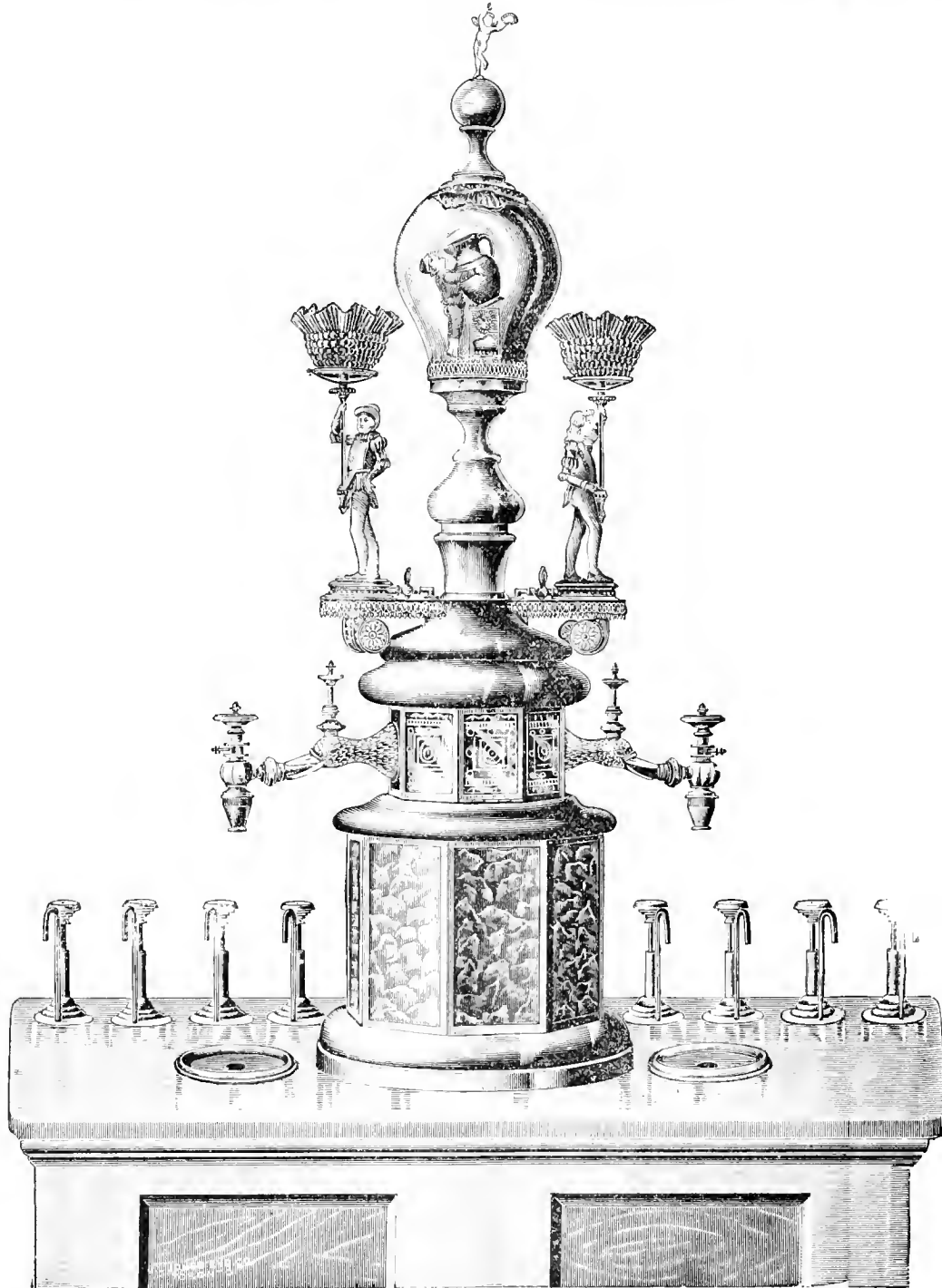
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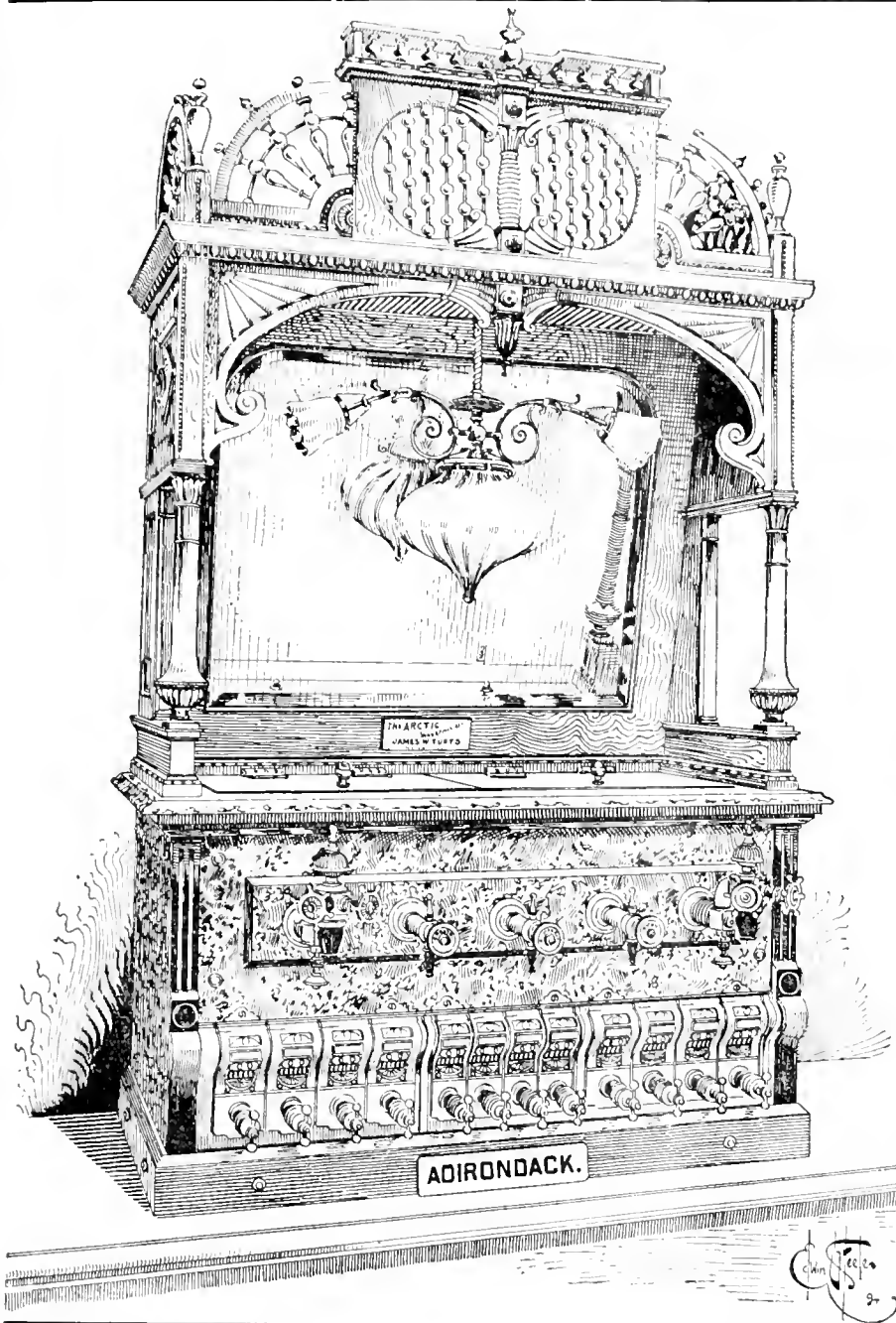
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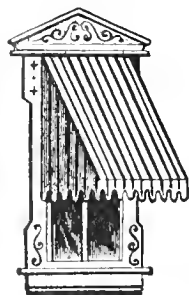
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An excellent antiseptic dentifrice.

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Dr. Wilson's Pulmonary Cherry Balsam

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Dr. Wilson's Dead Shot Worm Sticks

Nurse Wilson's Soothing Syrup

Clark Derby's Condition Powders

Wright's Vermifuge

Robert's Eye Water

Hurd's Hair Vitalizer

Dr. Howard's Quinine Wine

Dr. Howard's Beef, Iron and Wine

Strong's Summer Cure

Dr. Howard's Cod Liver Oil Emulsion

in our present investigations; yet the negatives are the first produced in Ontario of medical subjects. Delay has been caused by an entire absence of Crookes tubes suitable for skiagraphic purposes. During this interval I got my battery constructed, and secured a Rhumkorff coil capable of producing a spark six inches long. As soon as the tubes arrived from Germany I was ready for work.

A patient with a foreign body in the limb not being at hand to be skiagraphed, I resorted to the next best expedient, and that was of skiagraphing foreign bodies through the hand and arm. As you will see by the skiagraph of the hand (Fig. 1), that it shows a needle under the middle finger—the needle was placed under the finger and nearer to the photographic plate—while under the proximal end of the first phalanx of the index finger I placed a piece of glass, and a much smaller particle at the inner side of the proximal end and radial side of the terminal phalanx of the little finger; under the knuckle joint of the second finger a piece of lead was placed. All of these objects show with great distinctness, and most of them through bone. It appears that these foreign objects present a very much greater obstruction to the "X" rays than the bone, which is to an extent penetrable, as seen by the shadow shown of the thicker and thinner portions of the phalanges and metacarpals. The needle under the wrist (Fig. 2) shows the same result through a much thicker portion of the anatomy than the hand. The sharpness with which these objects are shown is due to their being closer to the plate. If they were embedded in the flesh they would show well enough, but not as sharply, the distance from the plate allowing some light to pass below them. The attention will have to be much more closely drawn to the next skiagraph (Fig. 3), as the foreign object here is one that is within the tissues, and is a source of annoyance. It is situated at the ulnar side of the distal end of the first phalanx of the middle finger. It is a mere speck, and if you overlook it I will not be surprised; at any rate I cut down on the part to-day and removed a minute speck of metal. The bone was also roughened at the situation.

The history of the case is that some ten months ago, the young lady thinks, a part of a needle broke off in her finger. She consulted the doctor, and says a piece of needle was removed, but does not think all came away. The skiagraph showed this spot, and at the operation I found a speck of steel. I shall hope for a recovery from the pain and inflammation which was causing her great annoyance.

I hope that by our next meeting I will be able to present some further examples of the usefulness of this process in locat-

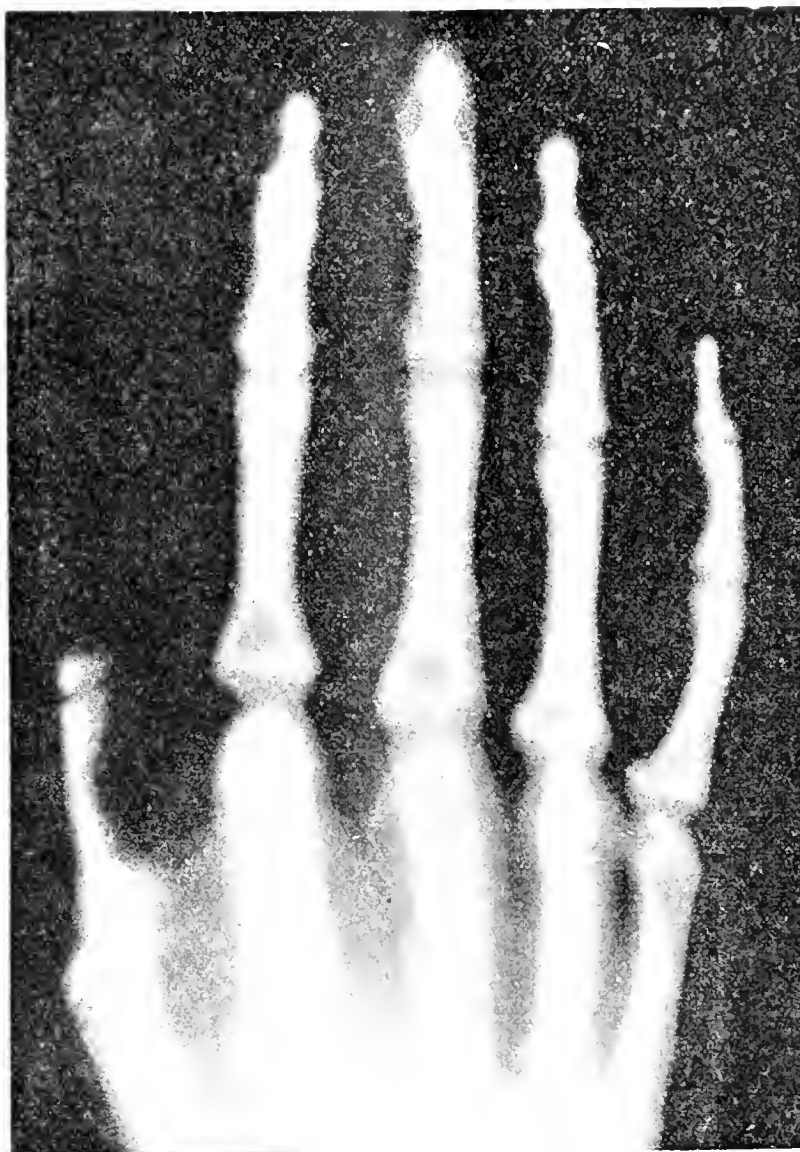


Fig. 3.

ing foreign bodies, as several subjects are now awaiting to be skiagraphed.

MONTREAL COLLEGE OF PHARMACY.

SESSIONAL EXAMINATION, MARCH, 1890.

SENIOR MATERIA MEDICA CLASS.

Examiner: PROF. F. D. REED, M.D.

The following are the questions submitted at this examination:

1. Name some of the products of de-

structive distillation of (a) wood, (b) coal. What is fractional distillation? What are its objects?

2. Explain the terms (a) chemical incompatibility, (b) pharmaceutical incompatibility, (c) therapeutic incompatibility. Give illustrations with official drugs. Criticize the following: R hydr. chlor. mitis, gr. x potass. bromid. gr. xv terebenc et div., in ch. i j.

3. Explain briefly the changes which result from the action of strong nitric acid on (a) cotton, (b) glycerine, (c) tin, (d) copper.

4. Give composition of colcothar, colophony, turpeth mineral, argols, Ethiops mineral.

5. Give in outline a process for obtaining quinine. How may it be distinguished from cinchonine and quinidine?

6. Gentian. B.O. habit at. part used. Name three official preparations, with strength. Name three principles which have been found in it.

7. Give a botanical description of ergot, and give the B.P. process for liquid extract of it.

8. How may phosphate of iron be made? How is the syr. fer. phos. B.P. made? What is ferri phosphas solubilis U.S.P.?

9. What are cellulose, maltose, saccharose, glucose?

10. What cinchonas are official? If a pharmacist had half a pound each of three kinds of bark, containing respectively 3, 4, and 7 per cent. of alkaloid, and a sufficiency of other ingredients, could he make ten pints of tinct. cinchon. co. B.P.? If yes, how?

MATERIA MEDICA—MINOR COURSE.

Examiner: PROF. J. L. W. LECOURS.

1. In what cases (a) is it indispensable to use white filtering paper for

filtering? (b) How may solutions of nitrate of silver and permanganate of potassium be filtered?

2. Is animal charcoal a suitable agent for decolorizing quinine wine? If not, why?

3. What is precipitation? Give examples.

4. (a) How is infus. digital. B.P. prepared? (b) Is the use of extracts to be commended for making infusions? If not, why?

5. What do you understand by percola-

tion, or method of displacement?

6. What precautions are to be taken when such substances as squill or gentian are to be dealt with?

7. Give the tests for the examination of aqua distillata B.P.

8. In the preparation of extracts of belladonna and conium B.P., what is the purpose of heating the juice to 200° F.?

9. What kinds of incompatibility are there? Give illustrations.

10. Must a pharmacist always refuse to put up a prescription which contains incompatible ingredients? Comment on this.

CHEMISTRY—SECOND YEAR.

Examiner—PROF. C. A. PFISTER.

1. How do monatomic alcohols form their aldehydes and acids?

2. Is the formation of ether, or ordinary sulphuric ether (so called), a simple phenomenon of dehydration of two molecules of alcohol?

3. Give the theory of the production of chloral.

4. What is the action of alkalis on chloral? What are the products?

5. What is a natural fat? A soap?

6. How may we ascertain the alcoholic strength of a complex liquid such as wine, beer, etc.?

7. Having an alcohol of 94 per cent. and Δ .8201, how is it to be diluted to make a spirit of 40 per cent. Δ .9519, pure alcohol having Δ .7946?

8. Explain the terms alkaloid, amine, phosphine, arsine, leucomaine, ptomaine. Give the formula of iodide of diethylpropylbutylammonium.

9. What weight of absolute alcohol will be produced by 100 parts by weight of glucose?

10. When may a ray of light be said to be polarized? Explain the terms levogyre, dextrogyre.

JUNIOR CHEMISTRY CLASS.

Examiner—PROF. JOS. BEMROSE, F.C.S.

1. What results when sulphuric acid and oxalic acid are heated together? How would you separate the products?

2. Give two methods by which acetic acid may be obtained; how would you detect SO_2 in it?

3. Describe the "Spectroscope"; of what use is it to the chemist?

4. Give the formula of the two chromates, and of the two manganates of potassium.

5. Also calculate their molecular weight.

6. Finish the following equations, $3\text{Hg} + 8\text{HNO}_3 =$ and $3\text{Cu}_2\text{O} + 14\text{HNO}_3 =$.

7. Name the following compounds: H_3AsO_4 , H_3As , PCl_5 , and POCl_3 .

8. What is "Phosphine"? How would you make it? And what are its properties?

9. Given an aqueous solution containing KCN and K_2SO_4 , how would you prove their presence in it?

10. How much ammonium nitrate would you require to make twenty litres of nitrous oxide?

SESSIONAL BOTANY EXAMINATION.

Examiners—PROF. BEMROSE, F.C.S., AND PROF. MORRISON, F.C.S., F.R.M.S.

1. Name the most important elements used in the nutrition of plants, and the forms in which they are taken up.

2. Draw a figure of the transverse section of an anther, marking the parts.

3. Describe the growth of an ovule up to the formation of the embryo sac.

4. Define the terms mycelium, ligule, gametophyte, scape, and versatile.

5. What is meant by cross and self-fertilization? Mention natural orders where each occurs.

6. Give diagnosis of the natural order liliacea, and show how it differs from the order iridaceae.

7. What is the prothallium of a fern?

8. How do the three forms of dehiscence—loculicidal, septicidal, and septicfrugal differ?

9. What do you understand by hermaphrodite, monoecious, and dioecious flowers?

10. Name three examples of each of the following forms of fruit: follicle, achene, and capsule.

Curing Cracked Emulsions.

Benj. Shoemaker, in a note in the alumni report (*Phil. Coll. Phar.*), writes on the subject of "cracked" emulsions as follows: "I have always understood that when an emulsion of cod-liver oil 'cracked,' nothing further could be done but begin over and make another. I made an emulsion recently in my usual way (*i.e.*, take 1 troy ounce of powdered gum arabic to a pint, adding first 1 fluid ounce of the oil, and then 2 fluid ounces of water, all at once, and afterwards oil and water, until finished). I was in a hurry and added a little too much oil, and the emulsion 'cracked.' There was some alcohol to be used in the preparation, so I thought I would see whether that would restore the emulsion, and add about 1 fluid dram of it. It brought back the emulsion to its proper condition. I have tried this experiment again lately, with repeated success. Never having heard before of any remedy for a 'cracked' emulsion, and thinking that the matter might be of interest to some of your readers, I send the above note."

Mentho-Phenol as an Antiseptic.

By mixing 1 part of phenol with 3 parts of menthol and melting the mixture, a transparent fluid with an aromatic odor and taste is obtained; the sp. gr. is 0.973, the fluid is nearly insoluble in water and in glycerin, but dissolves readily in alcohol, chloroform, and in oils. It dissolves iodine, iodoform, and aristol. Schaefer finds that this body has strong antiseptic and analgesic properties. It may be used preparatory to cauterizing chancroidal sores and curing necrotic surfaces. As a mouth wash 2 drops mixed with an ounce of aqueous menstruum may be ad-

vantageously employed. A case of abscess under the finger nail was painlessly lanced under a warm 5 per cent. aqueous solution of mentho-phenol, and rapidly healed when dressed with gauze containing 2 per cent. of the antiseptic. Equally good results were obtained in painful suppurating otitis media et interna. Wounds washed with warm 2 per cent. solution of mentho-phenol rapidly heal. In dental practice it is also useful, acting as a disinfectant and anodyne anæsthetic.—(*Boston Medical and Surgical Journal; Pharmaceutical Journal.*)

The Protoplast Cell.

You have caught me at last and caged me, and think you can make me reveal
The secret of life's creation, of which I am sign and seal.
Ho, gauge me by lineal inches, scarce seen in your microscope;
I have clothed the earth with her beauty, plain, valley, and mountain slope.
When the world from incandescent gases congealed into form, I was there,
And the sea was without a tenant, the land was lifeless and bare;
But I bore the infinite promise of verdure, and flower, and tree,
I covered the living myriads that people air, earth, and sea.
I, the all-bearing mother, transmute to all of life, have yet suffered no diminution, unailing through stress and strife;
Protophyte even as mammoth, and each as the other complete,
In me finds its primal parent, in me all divergents meet.
You stand against increase of matter! Why not against increase of mind?
Since nothing is made out of nothing, can the higher growth be defined?
Or of life? Can life be created, or spring forth where none has been?
The word made flesh, if you trace it, comes only through me, I ween.
So you fail to perceive a radiant where higher and lower swerve!
You say that no sense of vision preceded an optic nerve.
In your wild unrest with the future, while trembling upon its brink,
You hesitate whether 'tis better to know or only to think.
And still I go on increasing the visible forms of life,
Fulfilling my primal function wherewith all creation is rife.
Still unchanged amid all time's changes, which carry an upward sway,
An impulse from simple to complex my offspring must all obey.
I know not a higher or lower throughout the length of the line,
Macro- or micro-cosm no nearer is to the Divine.
Protozoan, animal, vegetal, linked by unchangeable law,
Are equally interdependent for the vital breath which they draw.
From the inorganic is fashioned all living, how varied or fair!
What, though, it is only the garment which for a brief season they wear?
And even your leaders in science, who marshal life's orders up,
Make the summit and crown of the ages the child and the buttress.
—Alexander Laing, Glasgow, in *Pharmaceutical Journal.*

CLEMATIS ERECTA IN ORCHITIS.—Clematis, known also as virgin's bower, like rhododendron, acts upon the testicles, and relieves orchitis, even of gonorrhœal origin.

A Clear Crystal Glass

PITCHER FREE



Capacity : One-Half Gallon.

Containing the equivalent of five boxes of Pepsin Tutti Frutti. It is also packed with an assortment of half Pepsin and half regular Tutti Frutti. Order early from your wholesaler. Send postal card for new advertising signs for your window.

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ALCOHOL

Pure Spirits

Rye and Malt Whiskies

"OLD TIMES" AND "WHITE WHEAT"



A POOR WHEEL
is like a poor horse—it costs more than its worth to keep it.

In the **Monarch**
the necessity of repair has been reduced to a minimum. Its strength, lightness, and beauty make it a marvel of modern mechanical skill.

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KING OF
WHEELS

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Insect Powder,
Copperas,
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Blocks, or Powder,
Paris Green,
Sulphur Sublimed,
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Alum Xtal,
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ASK FOR QUOTATIONS.

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Dr. Campbell's Safe Arsenic Complexion Wafers . . .

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THE ONLY REAL BEAUTIFIER OF THE
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CANADIAN AGENTS

71 Front St. E., Toronto, Ont.

Canadian Pharmaceutical Organizations.

We propose giving short sketches of the various pharmaceutical organizations of Canada—each province having a distinct society or college of its own, with laws established by the provincial legislatures. The acts establishing these societies are so very similar that, were the standards of examination more nearly alike, a universal pharmacy act might easily be put into operation. With the object of giving publicity to the basis of each organization, and showing how closely allied they are one to the other, and the further idea of bringing about a Dominion Pharmaceutical Association, will, we think, fully justify our giving up space to these articles.

NOVA SCOTIA.

The Nova Scotia Pharmaceutical Society was incorporated April 4th, 1876, the following being the promoters:

Thomas A. Brown, John K. Bent, Alexander Forsyth, Robert G. Fraser, William H. Simson, Henry A. Taylor, Thomas Walsh, William H. Webb, Henry L. Aitkins, James W. Jackson, Frederick W. Fraser, and John W. Webb.

The council consists of twelve members, whose term of office extends over two years, six members retiring at each annual meeting held in June, and their places filled by others chosen at that meeting.

The board of examiners consists of five persons, three of whom are appointed by the council and two by the provincial government. Every examiner is appointed for three years, and, in event of any vacancy occurring, his place is filled by the election of another, who serves three years from the date of appointment. The examinations are held at least once a year, notice being given in the newspapers of the city of Halifax. The examination fee is five dollars, but anyone failing to pass the examination may present himself again, but not until a lapse of six months, without further payment. A further sum of five dollars is to be paid when the diploma is granted. Every member of the society, who must be a registered chemist and druggist under the act, pays an annual fee of four dollars into the funds of the society. All druggists doing business in the province must be registered, and anyone not complying is subject to incur a penalty not exceeding twenty-five dollars and costs for the first offence, and for every subsequent offence fifty dollars and costs of prosecution.

Registered legal practitioners are exempt, but every drug store must be in charge of a member of the Nova Scotia Pharmaceutical Society, or a registered physician, so that branch stores must have a qualified manager.

The officers of the society consist of a president, vice-president, treasurer, secretary, and a registrar appointed by the council.

Schedule A enumerates the list of

poisons which registered druggists alone are authorized to sell or dispense.

SCHEDULE A.

Acids: Carbolic, muriatic, nitric, oxalic, hydrocyanic or prussic; aconite and its preparations; aconitia; antimony, tartarized, or tartar emetic; arsenic and its compounds and preparations; atropia and its salts; belladonna, and its preparations; cantharides and its tincture; chloroform; chloral hydrate and croton chloral hydrate; chloride of zinc; conium and its preparations; conia; colchicum and its preparations; creosote; croton seeds and their oil; cyanide of potassium, and all other cyanides; digitalis, and its preparations; digitaline; elaterium; ergot and its preparations; essential oils of bitter almonds, cedar, rue, savin, and tansy; ether; euphorbium; Goulard's extract of lead; henbane and its preparations; hellebore, black, white, green, and their preparations; Indian hemp and its preparations; iodine and its preparations; mercury, all poisonous compounds of, including corrosive sublimate, red and white precipitates, and iodides of mercury; morphia and its salts and preparations; nux vomica and its preparations; opium and its preparations; except paregoric; pink root; phosphorus; podophyllin; savin and its preparations; santonine; scammony; St. Ignatius' beans; stramonium and its preparations; strychnia and its salts and preparations; veratria and all poisonous vegetable alkaloids and their salts.

The subjects of the examination are as follows:

1. *General*.—The candidate must write a fair and legible hand, and must spell correctly. He must possess a knowledge of English grammar, the first four rules of arithmetic, vulgar and decimal fractions, and the rudiments of the Latin language.

2. *Materia Medica*.—The candidate must recognize specimens of drugs (as roots, barks, leaves, gums, fruits, etc.) used in medicine, and must be able to judge correctly of their quality. He must know their sources, habitat, and commercial history; their medical properties, uses, doses, and incompatibles; must name the official properties into which they enter, and the antidotes to be administered in cases of emergency for the more ordinarily occurring poisons.

3. *Chemistry*.—The candidate must possess a knowledge of the laws of chemical combination—the nature and properties of chemical compound elements and their compounds, recognize the acids, oxides, salts, and other definite chemical bodies of the Pharmacopœia, judge of their quality, describe the process by which they are produced, and explain the decompositions that occur in their production and admixture. He must be acquainted with the methods of taking specific gravities, and of testing the purity of the chemicals used in medicine and pharmacy.

4. *Practical Pharmacy*.—The candidate must possess a thorough knowledge of

pharmaceutical processes, recognize the galenic preparations of the Pharmacopœia (as extracts, tinctures, powders, etc.), describe the method of their preparation, and the composition of such as are compounded, and state the proportion of their active ingredients. He must be acquainted with the injuries to which drugs are liable, by age or otherwise, affecting their quality, and the proper means and precautions for preventing their deterioration. He must possess a familiar knowledge of the weights and measures in use in the British, American, and French Pharmacopœias, and the differences between their preparations and those of similar names in the United States Pharmacopœia.

5. *Dispensing*.—The candidate must read written prescriptions, translate them into English, write out at full length all abbreviated words in a neat and distinct hand, and detect incompatibles and unusual or dangerous doses. He must weigh, measure, and compound medicines, and finish and properly direct each package.

6. *Botany*.—The candidate must have a knowledge of the parts of a plant, of how plants grow from the seed, and of their growth from year to year. Also be able to describe the different forms or kinds of roots, stems, and leaves. The propagation of plants from buds and seeds. Flowers, their arrangement, sorts, etc. Fruits and seeds. The uses of plants, and how they are classified. He must also be able to name and describe those natural orders which contain the principal medicinal plants.

The following are the presidents since the formation of the society:

1875-1876, Henry A. Taylor; 1877, Alex. Forsyth; 1878-1882, Henry A. Taylor; 1883-1887, Wm. H. Webb; 1888-1889, Wm. H. Simson; 1890, Jas. H. Angwin; 1891-1892, Avery F. Buckley; 1893-1894, Jas. B. Hattie; 1895, F. C. Simson.

The officers for the present year are:

President, F. C. Simson; vice-president, W. F. O'Dell; treasurer, L. J. Mylino; secretary, A. H. Buckley; registrar, W. H. Hamilton.

The society is in a flourishing condition financially, and its members work most harmoniously.

LINEXIN.—An alkaloid from the *Lentana brasiliensis*, forming a white, inodorous, very bitter powder, which is almost insoluble in water, but soluble in alcohol. Recommended by Bueza as an energetic antiseptic in dose of 1 gram. *Phar. Post.*

BORO-GLYCERIN TOILET CREAM.—Lanolin 125 grams, and vaselin 350 grams, are fused together, then adding 175 grams of glycerin and 50 grams of a 50 per cent. solution of boro-glyceride, finally 100 grams of a perfumed water are combined, adding a few drops of otto of rose or some other perfume extract.—*Wen. Drug. Ztg.*

The Science of Optics.

BY LIONEL LAURANCE,
Principal of the Optical Institute of Canada.

[Entered according to Act of Parliament of Canada, in the year 1896, by Lionel Laurance, at the Department of Agriculture.]

Elementary Anatomy of the Eye.

A convex lens increases in strength when held further away from the eye, but a concave decreases; so that although a positive and a negative lens of the same curvature will neutralize each other when placed close together, they will not do so if separated a few inches. If you take a No. 5 convex and a No. 5 concave, and separate them, holding the former further away, the light passing through the two is converged considerably, because the convex lens acts as one that is stronger than No. 5. If the concave is placed further away it acts as one that is somewhat weaker than No. 5, so that the light passing through the two is converged slightly. The difference when the lenses are held together is slight; but, as the one or the other must of necessity be further away, it is sufficient to prevent an absolute neutralization.

If a convex lens, say, No. 10, and a concave of the same number be held in front of the eye, they act practically as a plain glass. If the concave be gradually moved further out, the convex being left in its original position, the concave neutralizes less of the convex power, until, if it be removed to a certain distance, the former has no influence on the latter, as practically all the rays of light diverged by the concave pass to the outside of the convex lens.

To learn whether a convex or a concave sphere is properly centred, look through it at the cross on the analyzing card. If it be centred, the junction of the two lines will be exactly in the centre of the lens, while, if it be decentred, the junction of the two lines will be seen somewhere not in the exact centre of the lens. To complete the test the lens must be rotated on its axis while being looked through, and the cross should not move if it be a properly centred spherical.

The optical centre lies in the thickest part of a convex, and the thinnest part of a concave lens.

The geometrical centre of a lens is that which is midway between the edges—that is, the middle point of the glass.

A lens is said to be centred when the optical and geometrical centres coincide, and is said to be decentred when they do not.

The test of noting whether the cross moves when the lens is rotated on its geometrical centre is also that which is used for distinguishing between spherical and cylindrical lenses.

A meridian is any line encircling a globe and passing through the two poles. It is, therefore, as regards lenses, any line across it passing through the centre.

Spherical lenses, being segments of or hollowed out on spheres, have the same

curvature, and, therefore, the same refractive power in every meridian.

Cylindrical lenses are segments of or hollows made on a cylinder or column which is perfectly straight in one direction, that is the axis, and has a varying degree of curvature in each meridian, the greatest being in that direction which is at right angles to the axis. A convex cylindric lens is a segment of a cylinder on one side, and is flat on the other. A concave cylindric lens is a hollow curved out by a cylinder on one side and is flat on the other. As a cylindrical lens has no curvature in the line of its axis, it has there no refractive power; the greatest amount of refractive power is in the meridian of greatest curvature at right angles to the axis, and on the curvature of this meridian of greatest refraction depends the number of the lens.

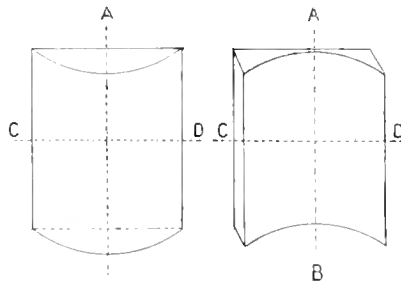


FIG. 23.

FIG. 24.

Fig. 23 represents a convex cylinder, and Fig. 24 a concave cylinder. The line AB in either shows the axis where there is no refractive power, and CD in either shows the meridian at right angles to the axis, where there is the most curvature, and therefore the greatest refracting power.

In discussing or fitting cylinder lenses it is necessary to consider only these two principal meridians, the axis and the meridian at right angles to it.

We always talk of a cylinder as being with its axis in a certain direction, and it is well to grasp the fact that the defect which the cylinder has to correct is at right angles to the axis of the lens; that is to say, it is in the same direction as the meridian of greatest curvature. I consider it a pity that the position of a cylinder should be marked by its axis. It would be far more rational to mark it by the meridian of greatest power, but such is the custom.

Vertical is that direction running straight up and down, perpendicular to the horizon. Horizontal is that direction running straight across, parallel to the horizon.

Two cylinders of the same number, both convex or both concave, placed together with their axes crossing one another, make a spherical lens of the same

number. For example, a +4D cylinder axis vertical and a +4D cylinder axis horizontal are together exactly the same as a +4D sphere. The greatest power of the one coincides with the axis of the other, and *vice versa*, and at the intermediate meridians what is wanting in curvature to make a +4D in the one lens is supplied in the other, so that there is a refractive power of 4D in every meridian, and this constitutes a 4D spherical.

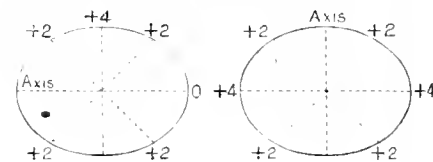


FIG. 25.

In Fig. 25, if the lens A be placed over the lens B it will be seen that the total refracting power of the two lenses is 4D in every meridian.

A 2D cylinder may therefore be considered as a lens that has half the refractive power of a 2D sphere, not half of its refractive power in every meridian, that would constitute a 1D sphere, but one that has the full amount of refractive power in one meridian and none at all in the opposite meridian, the intermediate ones having a curvature that gradually descends from that of 2D to *nil*.

If two cylinders, say, +1.50D, be placed with their axes parallel, they make a +3D cylinder; if the axes are at right angles to each other, they make a +1.50 sphere. At any intermediate position they make a certain compound cylindric lens, the same as a sphere and a cylinder.

As rays of light passing through a cylinder suffer refraction to a different i.e. every meridian and none in that of the axis, it is not possible to get a complete image of a luminous object on a screen with such a lens. If, however, a convex cylinder be held in front of a screen at the focal distance of the meridian of greatest curvature, with the axis either horizontal or vertical, certain bright lines will be seen. For instance, if a +4D cylinder be held with its axis horizontal at 10 in. distance from a screen and facing a bright light, some lines will be seen on the screen running horizontally, so that a number of a simple convex cylinder might be learnt in this way, although it is not very certain or satisfactory.

It should be noticed that if the axis be held vertical the bright lines are vertical; the greatest power of the lens being horizontal the rays of light are refracted in that meridian, and brought to a focus point by point, so that they form lines that run vertically.

When a cylinder is combined with a sphere the cylindric power is ground on one side, the spherical power on the other, and it is called a compound cylindric lens. The refraction of such a lens is very complicated. There is refractive power in every meridian, the least being in the meridian of the axis of the cylinder, and the greatest in the meridian at right

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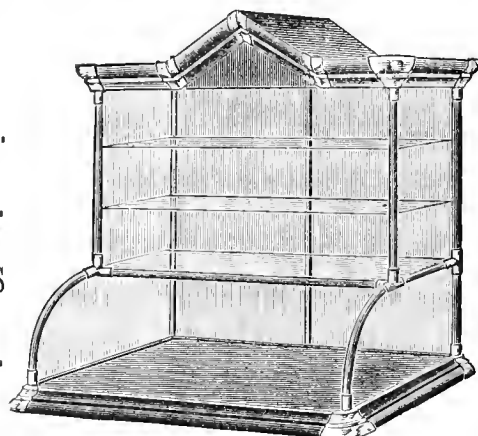
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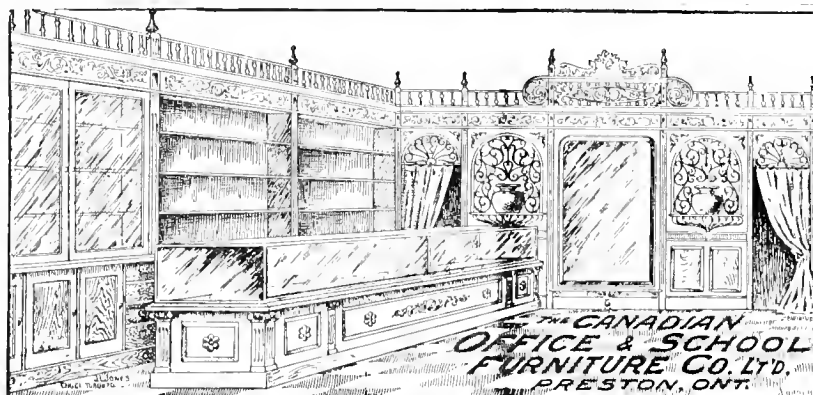
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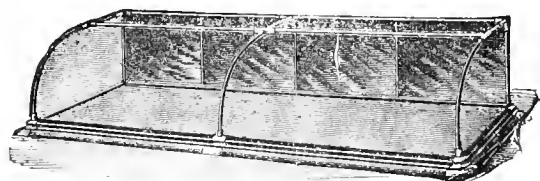
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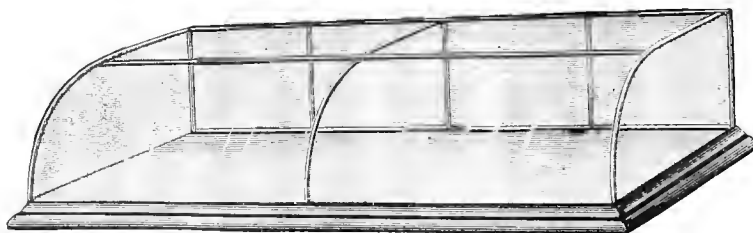
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angles to the axis. If you focus light on to a screen by a compound cylindric lens, say, a +4D spherical combined with (sign \ominus) a +4D cylinder, you will find two distances at which you will get bright lines sharply defined. If the axis be horizontal you will find at 10 in. certain bright vertical lines; this is the focal distance of the spherical power only. At 5 inches you will find certain bright horizontal lines; this is the focal distance of the combined cylinder and spherical powers (the stronger the lens, the shorter the focal distance). When the lens is held anywhere between the two focal distances, there will be found on the screen round and oval shadows which are called circles of diffusion. The distance between the two focal points is called the interval of Sturm. The number of an unknown cylinder is, however, to be found properly only by neutralizing.

If you look through a cylindric lens at the analyzing card, you will find that the square card appears oblong. A convex cylinder will make the card appear larger in the direction of the meridian of greatest refraction, while a concave cylinder will make it appear smaller. In Fig. 26 A is the card, B is as it appears through a convex cylinder, C is as it appears through a concave cylinder, both cylinders being held axis vertical. If the lenses be placed one over the other, axes corresponding, the card is seen square again if the two lenses be of the same number.

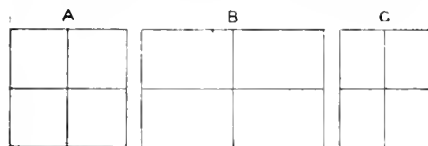


FIG. 26.

To distinguish between a lens that has only spherical power and one that has cylindric power, look through it at the analyzing card, and turn the lens around its centre. If the lens be spherical, the lines remain unmoved; if the lens be cylindric, the lines become twisted, as in Fig. 27.

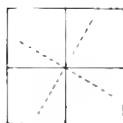


FIG. 27.

There are two positions of the lens where the cross-bars are seen in their proper positions perfectly straight: one is when the axis is parallel to the vertical bar, and the other when parallel to the horizontal bar. When the bars are in their natural position, you can find the axis of a simple cylinder by moving the lens downwards and also sideways. In one direction there will be no movement of the figure, as the lens, being moved in the direction of its axis, acts as plain glass, and so by this test you can locate the axis of the cylinder. If the lens be a compound cylinder, then there will be movement in both directions; but where

it is less marked indicates the direction of the axis, and where it is greater shows the meridian of greatest power. If the former, there is movement caused by the spherical only; in the latter that of the combined cylinder and spherical.

As with spherical so with cylindrical lenses. The movement of an object seen through a lens when it is moved is with the lens, if it be concave, and against the lens, if it be convex.

As the number of an unknown cylinder can only be found by neutralizing, the first thing to do is to locate the axis. This having been done move the power lens contrary to the axis, and note if it be convex or concave. Then proceed to find the cylinder of opposite refraction, that placed over the unknown lens will completely neutralize the movement in the meridian of greatest refraction. The lenses during the working out of this must be kept exactly parallel to one of the bars, the vertical one for preference, and care must be taken that the axis of the neutralizing lens be placed and held with the greatest exactitude just over the axis of the other lens. To do this with ease it is, perhaps, better to mark with ink the axis of the unknown lens; those with which the neutralizing is done will have the axis marked if they be from a test case.

Neutralizing compound cylindric lenses is sufficiently difficult. First locate the axis of the cylinder and mark it with ink, and holding the lens axis vertical move it vertically; note the direction of the movement, and find that spherical lens of opposite refraction that will cause no movement of the horizontal bar when the two lenses together are moved vertically. This spherical lens, neutralizing the movement of the spherical of the unknown lens, denotes the power of the latter. Now, holding the two lenses—the compound cylinder and the neutralizing spherical—together, with the ink-marked axis still vertical, move them horizontally and note the direction of the movement of the vertical bar, and find that cylinder of opposite refraction that will neutralize the horizontal movement; the axis of the neutralizing cylinder must be put on exactly over the axis of the unknown lens which you will have marked with ink.

To simplify the above note that when the lens is moved vertically you must regard the direction taken by the horizontal bar, and *vice versa*. It requires considerable practice to neutralize properly and quickly strong compound lenses. The best way to learn this work is to practise with lenses of known refraction, such as are in a test case, taking note of the movement of the bars seen through various simple and compound cylinders, and how these movements are nullified by lenses of opposite refraction.

A combination of a + cylinder and a - cylinder with the axis of the one at right angles to that of the other (they cannot, in practice, under any circumstances, be otherwise than at right angles) is called

a cross cylinder. Such a lens is, however, little used to day, as it is much more difficult and costly to make, and also because it is not so good for optical purposes as when reduced to a mixed cylinder. I apply the term mixed cylinder to a combination of spherical and cylindrical, in which the cylindrical is of opposite refraction to the spherical, and also of a higher number, its refraction being + in the one direction, and - in the other. The movement of the bars on moving a cross or mixed cylinder is with the lens in the one direction, and against the lens in the opposite direction.

For the reduction and transposing of cylindrical lenses, see chapter on that subject.

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CANADIAN DRUGGIST, Toronto.

Glycosolvol is, according to the *Pharmaceutische Centralhalle*, a new remedy for diabetes mellitus which has been introduced recently, but so far no information is forthcoming as to its composition.

Pharmacy in England.

(By Our Own Correspondent.)

Professor Dunstan, F.R.S., of the Research Laboratory of the Pharmaceutical Society, has resigned this post in order to accept the directorship of the Research department of the Imperial Institute. Those who read between the lines of this bald announcement will easily guess that this is the latest, and probably last, outcome of the unfortunate aconitine controversy that was raging this time last year. Professor Dunstan did not come out of the affair with flying colors, as his friends thought he would, and even the whitewashing of his own committee has failed to accomplish its object. It is not surprising, therefore, that at the first available opportunity Professor Dunstan should sever a connection that was uncongenial. It is a curious fact that although Professor Dunstan is not a pharmacist, and has little in common with pharmacists, yet he has been unable to dissociate himself from pharmacy in the eyes of the scientific world, no matter how he tried. Of course this was because his education was chiefly obtained in the society's laboratory, and his rise in the world entirely due to the pharmaceutical backing he obtained. Since then most of his work has been on pharmaceutical lines, or, at all events, relating to drugs. This is just what is wanted at the Imperial Institute, where a museum of drugs has accumulated for investigation, and the laboratory staff has had no one with pharmaceutical training or special knowledge of drugs attached to it. Professor Dunstan intends increasing this staff, and probably will take one or two men with him from Bloomsbury Square, as soon as he severs his connection with the society.

Close on the Professor's resignation comes the news that Mr. Michael Carteigh does not intend to accept re-election as president of the Pharmaceutical Society. I have had this from the best source, but so far it has not leaked out in England. For several years he has threatened that he would not accept re-election, but when the time came he has yielded to persuasion. But this time he says he has made up his mind and nothing will alter it. It is intended, by those who ardently support him, to place Mr. Walter Hills, F.R.S., in the presidential chair. It is assumed by some that Mr. Hills' will be the velvet glove containing the Carteighian iron hand. If this is so, I think they will be much surprised by events, as Mr. Hills is a very able man, and not at all likely to play the puppet. He is the sole proprietor of the old established business of John Bell & Co., of New Oxford street, London. Jacob Bell is the bright and shining light of the past generation of the pharmacists, and Mr. Walter Hills is the son of Jacob Bell's nephew. He is a good speaker and hard worker, and would devote a good deal of his time to the work of the society, in spite of the impression that he is rather a *dilettante*. He has made rather a bad start by opposing the

Shop Hours' Regulation Bill, which is Sir John Lubbock's method of obtaining early closing by means of local option. As this measure is supported by the majority of the craft, it is rather unfortunate that Mr. Hills should have spoken so decidedly against it; more especially as, from the point of view of practical politics, the bill is threatened by being smothered with the too-attentive amendments of its own supporters.

Messrs. Gibson & Son, of London and Manchester, have introduced a new feature in the packing of their well-known boiled sweets that cannot fail to be appreciated by their export customers. Hitherto their goods have only been supplied in glass bottles, which have not always survived the long journey to which, in many cases, they are subjected. Now they are putting them up in tins, from one pound net weight and upwards, and as these are not charged the change is decidedly beneficial. Of course, from the chemist's point of view, glass packages are better for showing off this class of goods, but tins are much better for keeping the stock in than bottles in hot climates. This style of packing might be much more largely employed than is now the case, and nothing would be lost in appearances if enamelled tins were employed. Thus, antiseptic dressings and plasters have for some time been put up in sealed tins by several American houses, such as Seabury & Johnson, Johnson & Johnson, etc. Powdered drugs, too, keep better in tins than bottles, as the latter have always to be washed first, and too often the drug is placed in a carelessly dried bottle, with the result that it soon deteriorates. Compressed tablets and some capsules are also better stored in tins than bottles or boxes, but some concession to artistic taste should be made by only employing decorated tins. Tooth paste or powder is distinctly more convenient in round tins than the old dispensing ointment pots too often employed, or wooden boxes. The latter have an irritating way, after a time, of the lid disagreeing with the lower portion and refusing to fit on nicely again. In all damp, hot climates the superiority of tins as containers is widely recognized, and yet not always carried out by exporters.

Slowly the Association of Proprietary Dealers is making headway in its efforts to enlist the co-operation of chemists with its scheme. Meetings of the members of the craft have been held in the metropolis and several of the large provincial towns, and the support received so far appears encouraging. A curious suggestion has emanated as the result of these meetings which is not what the originators intended. Someone has gravely suggested that a central institution should be founded where all proprietary preparations, and also the ordinary galenicals, should be manufactured and supplied to the shareholders at cost price. Only those who refused to cut prices should be allowed to take shares, and the suggestion is plainly

made that this would enable the non-cutter to wipe out the cutter when necessary by fighting him with his own weapons for a time, and then, having secured the desired result, prices might go up again. We have heard of this scheme before, but somehow it has never worked. Wholesale druggists exist in larger numbers to-day than ever before, although their number does not increase in anything like the proportion that is found in the retail. That combination, even for the purpose of buying cheaply, is useful is well known to a number of pharmacists, who do not hesitate to combine their orders so as to obtain the best prices and terms. Even in the west end of London I know of three pharmacists who are excellent neighbors, and whenever they can manage it they combine their orders, and thus make a considerable saving. There is little doubt, if only the capital were subscribed, and good management secured, that such a central institution would pay well. But in the present temper of the craft, especially in provincial towns, where they love each other too often like poison, the mere notion of uniting for any trade purposes is scouted.

Progress is being made with the new photography, and both the leading medical journals, the *Lancet* and the *British Medical Journal*, have devoted laboratories to experimenting with it. Messrs. Brady & Martin, of Newcastle-on-Tyne, and Messrs. Reynolds, Branson & Co., of Leeds, are also supplying the apparatus to medical men and hospitals, but London druggists have not gone in for it. The latest development is the discovery in the *Lancet* laboratory that, placing the dark slide facing downwards upon powdered fluor-spar, the exposure necessary is reduced to a few seconds. It is quite evident that we are only at the beginning of the developments in the subject.

The Price of Alcohol.

The letter of Messrs. Anderson & Nelles, which appears in our correspondence columns, is one worthy of consideration. It appeals to the pocket as well as to the love of justice of each individual member of the drug trade, and there could be no more opportune time than the present, when candidates are soliciting votes, to secure from them pledges to assist in a movement which aims at the reduction of price in an article so universally used in the preparation of medicine. We would like to hear from others of our readers in reference to this proposition.

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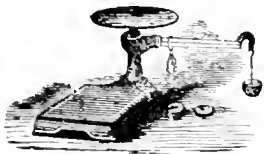
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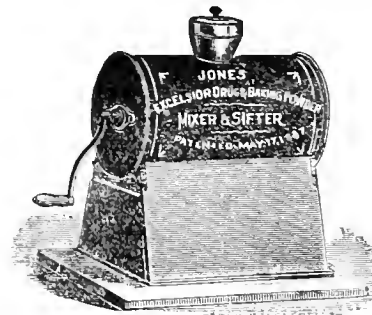
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A
SAMPLE
ORDER

Lafayette

Cigars and Cigarettes 5 cents

Creme de la Creme

Cigars and Cigarettes 10 cents

Royal Turkish

Cigarettes 15 cents

Sonadora

Cigars and Cigarettes 15 cents

Creme de la Creme Cigar Co.
MONTREAL.

"Mist" COUGH
LOZENGES

SELL ON SIGHT
GOOD PROFIT . .

10cts.

THE KEY MEDICINE COMPANY,
395 YONGE STREET, TORONTO.

"DUNRAVEN" 10c.

"F. & S." 5c.

These are both very
high-class Cigars.

Fraser & Stirton,
Send for Sample Order. LONDON, Ont.

. . . MOST WONDERFUL DISCOVERY OF THE AGE. . . .

Excelsior Egg Preserver

It is no pickle; you simply treat the eggs with **Preserver**. After treating lay them away in a cool, dry place, in a box. The idea is to lay down a supply when eggs are cheap.

The **Preserver**, used according to our directions, will stop all decay of the animal matter of the shell, and, at the same time, seals every pore of the shell, which will keep the yolk in the centre of egg, where it is always found in fresh eggs, as the air cannot escape, nor can it work in, and we guarantee the egg to be as fresh in one year as the day it was treated. It costs less than one cent per dozen to lay them down, and a child can do it; it requires no skill. **Preserver** will be appreciated by all your customers.



FOR SALE BY ALL WHOLESALE DRUGGISTS.

Manufactured by

Canadian Depot . . .

P.O. Box 93,
HAMILTON, ONT.

EXCELSIOR MANUFACTURING CO.,

6344 CHAMPLAIN AVE.,
CHICAGO, ILL.

Formulary.

EMULSION OF IODOFORM.

Iodoform	5 drachms.
Glycerine	1 oz. 7 drachms.
Aqua dist.	3 " 1 "

—*Mag. Pharmacy.*

CANARY BIRD FOOD.

	Parts.
Dried yolk of egg	2
Poppyheads pounded coarsely	1
Cuttlefish bone, coarsely powdered	1
Granulated sugar	2
Wheat biscuit, dried and powdered	8
Mix.	

CHEMICAL GUANO, GRANDEAU.

Calcium nitrate	100
Potassium nitrate	25
Potassium phosphate	25
Magnesium sulphate	25

Dissolve from 4 to 10 grams of this powder in 1 litre of water, and water each pot plant with this once or twice a month. The plants must be in full vegetation.—*Rev. Horticult.*

MAGIC CLOTH AND GLOVE CLEANER.

This is intended for silk or dress goods, gloves, ribbons, etc.; it will not stain nor discolor.

Gasoline	1 gallon.
Chloroform	1 ounce.
Bisulphide of carbon	1 ounce.
Essential oil of almonds	5 drops.
Oil of bergamot	1 drachm.
Oil of cloves	5 drops.

Mix them. To be applied with a sponge or soft cloth; gloves are best cleaned on the hand.—*Fenner.*

HOUSEHOLD AMMONIA.

1.

Ivory soap (or other good white soap)	4 ounces.
Rainwater	4 pints.
16° ammonia water	4 pints.

Cut or shave the soap fine and dissolve it in the water by the aid of heat, then cool and add the ammonia. If other strength of ammonia water is used, make it to correspond with the 16°; for example, if the U.S. 10° is used, take only two pints of water, instead of four pints, and use six pints of ammonia water; if 20° ammonia is used, use five pints of water and three pints of ammonia water. This is sometimes called "white ammonia."

2.

Potassium carbonate	1 ounce.
Rainwater	4 pints.
Ammonia water	4 pints.

Dissolve the potassium carbonate (sal tartar) in the water and add the ammonia water.—*Fenner.*

3.

Borax	60 gm.
Oil cinnamon	10 drops.
Oil cloves	6 drops.
Oil citronella	6 drops.
Alcohol	3 gm.
Ammonia water	7.5 litres

—*Dragisten Zeitung.*

MOTH KILLERS.

Most of the moth-killers of the present day contain naphthalin (so-called "coal-tar camphor") as their active ingredient, alone, or in combination with gum camphor, or other insecticides. We append a few formulas:

CEDAR-TAR CAMPHOR.

	Parts.
Powdered naphthalin	19
Oil cedar	1

MOTH POWDER.

	Parts.
1.—Naphthalin	2
Camphor	4
Oil cinnamon	2
Oil eucalyptus	2
Patchouli	10
Valerian	5
Tobacco	2
Orris root	5
Sumbul root	5

All the ingredients to be powdered.

2.—Naphthalin	3,000
Camphor	1,000
Cumarin	2
Nitrobenzine	10
Oil neroli	1
3.—Capsicum	1
Naphthalin	4
Insect powder	5
4.—Cloves	50
Black pepper	100
Quassia	100

Sprinkle the powdered drugs with

Oil cassia	2
Oil bergamot	2

Previously dissolved in

Ether	20
-------------	----

Then mix with

Ammonium carbonate	20
Orris root	20

MOTH ESSENCE.

1.—Naphthalin	10
Carbolic acid	10
Camphor	5
Alcohol	500
Spirit lemon	5
Oil thyme	2
Oil lavender	2
Oil savine	2

This may be used by sprinkling, or, better still, by means of an atomizer.

	Parts.
2.—Oil patchouli	1
Nitrobenzine	9
Naphthalin	20
Carbolic acid	20
Camphor	50
Oil turpentine	50
Alcohol	850

Mix, let stand for several days, and filter.

—*Merck's Report.*

COCA DENTIFRICE.

This novel preparation has lately been devised by an eminent dental surgeon, and has, we understand, been used with very satisfactory results in cases of chronic toothache, and tender, spongy gums, etc. Although not quite so economical as the general run of tooth-powders, its superior qualities render it, like most other really good things, the cheapest in the long run.

Calc. phosph. precip.	2 oz.
Rad. irid. precip.	1 oz.
Gum myrrhæ Turc., opt.	12 dr.
Cocaine hydrochloras.	1½ gr.
(l). Eucalypt. glob.	12 minims.
Alcohol	q.s.

Mix together the orris root and myrrh, both in fine powder; dissolve the cocaine and eucalyptus oil in the requisite quantity of spirit, and add this solution to the phosphate of lime previously desiccated, and warmed to about 130° or 140° F. in a glass or porcelain mortar, stirring with a pestle or spatula until evenly absorbed. If required to be colored at all, the tinctorial matter may be added at this stage. Lastly, shake in the orris root mixture, and work the whole until perfectly homogeneous.

A little of this coca dentifrice applied regularly upon a wet tooth-brush in the usual manner will, it is said, speedily strengthen the gums, and give relief from pain, even when the teeth, or some of them, are badly decayed, and aching from the consequent exposure of their nerves.—*Monthly Magazine of Pharmacy.*

VANILLA ESSENCES.

The *Zeitschrift für Kohlensäure Industrie* gives the following formulæ for preparing three grades of vanilla essences:

(1) *Plain*: Vanillin, twenty parts; absolute alcohol, 600 parts; water, 450 parts. Dissolve the vanillin in the alcohol and add the water.

(2) *Stronger*: Musk, one part; potassium carbonate, one part; vanilla beans cut up, sixty parts; boiling water, 240 parts; alcohol, 720 parts. Mix the vanilla, musk, and potassium salt, and pour over them the boiling water. Let stand until quite cold, then add the alcohol and set aside for fourteen days. Finally, strain, express, and filter the colate.

(3) *Strongest*: Vanilla, in fine bits, 250 parts; alcohol, 95°, 2,500 parts; water, 1,500 parts. Mix the alcohol and water, and pour one-third of the mixture over the cut beans. Put into a vessel with a tight cover, place in the water bath and keep for one hour at 60°C. Pour off the liquid, and set aside. To the residue in the vessel add one-half of the remaining alcohol and water, and treat in the same manner. Repeat the operation with the remainder of the liquid. Remove the vanilla to an extraction apparatus, pack and extract with 250 parts of alcohol and water mixed in the proportion indicated above. Mix the results of the three infusions, filter, and wash the filter with the result of the percolation, allowing the percolate to run through and mingle with the original filtrate.

To prepare a syrup with either of these essences, mix fifteen parts of the essence, eight parts of caramel solution and 4,500 parts of syrup in which fifteen parts of gelatin have been previously dissolved by the aid of gentle heat.—*National Druggist.*

BLACK STAIN FOR WOOD.

Make a solution of 67 parts of sodium chlorate, and an equal amount of copper chloride in 1,000 parts of water. Make another, in the same amount of water, of 150 parts of anilin hydrochlorate. The

wood to be stained—a laboratory table top, for instance, is given a coating of the first solution, and after it is absorbed one of the second solution. Let dry, and repeat the operation. Three coats of each will be sufficient for any wood. After the last coat has become quite dry, go over the wood with good boiled linseed oil and rub well. Better still is a mixture of linseed oil 5 parts, wax 5 parts, and oil of turpentine sufficient to make a pasty mass. This preparation gives a deep and everlasting black that most closely resembles, on hard wood, a good article of ebony, and it gives druggists who want to finish up their fixtures in ebony a splendid medium with which to do it.—*National Druggist*.

Photographic Notes

Photography for Chemists.

BLACK AND WHITE.

One or two queries that have been sent by correspondents, on the subject of failures in successfully reproducing black and white subjects, such as line diagrams or printed matter, either as prints or lantern slides, suggest that primarily the cause of failure lies in the making of the negative, and that this point is deserving of treatment at some length.

First, as to the lens. Almost any lens may be used, even a single or landscape lens, because, as a rule, we do not use the whole of the field, merely the centre, and there distortion of marginal lines does not become apparent; on the other hand, a doublet is preferable, and undoubtedly the newer lenses, such as the Concentric, Collinear, Zeiss, Goerz, or Cooke, give superior results, because of their flatter fields and greater freedom from astigmatism. The focus of the lens is immaterial, provided always it is not so long that it will not allow of a sharp image being obtained when copying full size, or nearly so; because it must be remembered that the nearer you get to your object, so the focal length for the time increases, and, if you have two or more lenses, the necessary distances should be calculated out so that you do not get into a difficulty by using a lens of too long focus, or one too short. The rule to find these distances is, divide the longer base of original by longer base of plate, add one, and multiply by the focus of lens; for copying, this gives the distance between lens and object. To find the distance between lens and sensitive plate, divide the distance between lens and object by the number expressing the ratio of image to object. We want to copy a diagram or page of a book measuring 9x5 ins. so that we can make a lantern slide by contact; the lantern plate measures $3\frac{1}{4} \times 3\frac{1}{4}$ ins.; $\therefore 9 \div 3\frac{1}{4}$ = the amount of reduction, or ratio of image to object. Using an 8-inch focus lens, we have a very simple sum:

$$[(9 \div 3\frac{1}{4}) + 1] \times 8 = 4\frac{9}{10} \times 8 = 30\frac{9}{10} \text{ ins.}$$

This is the distance from lens to object; then:

$$30\frac{9}{10} \div [9 \div 3\frac{1}{4}] = 10\frac{9}{10} \text{ ins.,}$$

which is the distance between lens and plate. It may be added that in doublet lenses these distances should practically be measured from the diaphragm slot, and with single lenses from the front surface of the lens. There is one important point which must not be forgotten; taking the above case, we find that the focus is increased to 11 ins. practically, but our diaphragms or stops, which have an important bearing on exposure, are calculated out on a basis of 8 in. facts. The result will be that they are reduced in value, and, therefore, the exposure should be proportionately lengthened; for instance, the diameter of F/8 with an 8-in. lens is obviously 1 in.; therefore, with 11 in. focus it is no longer F/8, but F/11; and as the exposures with these two apertures are as $8^2 : 11^2$, or practically as 1 : 2, it is obvious we must take this into consideration.

Now for the treatment of the object. Suppose we have a page of a book, a diagram, or engraving to copy, and it is impossible to tear it out of the book, what is the best way to go to work? As a rule, one does not care to tear up one's own books, though we may not be so careful of other people's; but even they would object, probably, to have, perhaps, a valuable book mutilated merely because you want to copy something. Obtain two pieces of plate glass, or even old negative glasses will do, so long as they are quite clean, some stout india-rubber bands or American wooden clips. Place your book flat on the table, open at the particular leaf. Hold this leaf up straight, place one glass behind it and one in front, slip two india-rubber bands over the glasses and leaf, one near the centre of the book, the other at the edge of page, and you will have a perfectly flat surface, and only need place a box or pile of books behind to keep this upright and in a position for copying.

The next point is, where is it to be opened? Naturally, we have a totally different subject to a living subject. We want no half-tones, no modelling, nothing but black and white, consequently as flat and even a lighting as possible. This does not seem a very difficult thing to obtain; but it is far more difficult than one would suppose. Placing the book exactly opposite the window of the room is satisfactory as long as too short a focus lens is not used, or else the camera casts a shadow, and photography is far more sensitive to varying lighting than our eyes. If it is not possible to do this or to copy the book out of doors, then place it as nearly as possible at an angle of 45° with the window; and, to equalize matters, use a good-sized bedroom mirror to reflect the light on to the side further from the window. Now set up your camera approximately at the distance found by above rule, and focus sharply with full aperture of the lens. And now

look out for reflections; if you can on the ground glass see the slightest reflection you may be quite sure that it will appear in the negative and spoil your results. If you cannot get rid of them in any other way—and it will be found that it generally is possible to do it by a slight shifting of the book and camera—then you must erect a framework of tissue paper all round the book, for this breaks up the light, so that no distinct reflections are visible.

Before leaving the question of the subject, it must be distinctly understood that the camera must be parallel to the object, or parallel lines in a diagram will appear to be convergent. This is particularly important when making negatives for lantern slide work.

One of the principal advantages of rapid plates is their power of reproducing correctly the varying tones or gradations which exist in nature, but in copying black and white this very power is a great drawback, because we want no tones, no gradations, merely black and white; and, therefore, rapid plates possess a quality we do not want. The only plates to use for this work are the so-called photo-mechanical or process plates, which are specially made for the purpose, and have but little or no scale of gradation, but merely two tones.

With regard to exposure, but little help can be given. The only thing to do is to make a trial as follows: Pull out the shutter of your dark slide, and uncap the lens for thirty seconds, cap the lens, push sliding shutter in about one-fourth, give fifteen seconds more; repeat this operation till the whole plate has been exposed in strips with thirty, forty-five, sixty, and seventy-five seconds exposure; on development, a good guide will be obtained as to something like the correct exposure. Practical trial alone can teach this.

The particular method of development is not of much moment—pyro, hydroquinone, glycine, or even metol and hydroquinone.

A very good pyro formula is:

Pyro.....	4 grains.
Metabisulphite of potash.....	4 "
Potassium bromide.....	4 "
Distilled water.....	1 oz.
Sodium tribasic phosphate.....	40 grs.

or hydroquinone—

Hydroquinone.....	4 grs.
Metabisulphite.....	4 "
Bromide.....	2 "
Citric acid.....	2 "
Distilled water.....	1 oz.
Sodium tribasic phosphate.....	40 grs.

Glycine may be used instead of the hydroquinone in the last formula, and equally good results obtained. For beginners pyro should be avoided.

In developing, the main point to be observed is clear lines; density is quite of secondary importance, though if the two can be obtained in one operation, so much the better. Continue development as long as you can, but on the slightest sign of the lines veiling wash and fix. When thoroughly fixed, rinse and take

THE ALE AND STOUT

OF

JOHN LABATT

LONDON

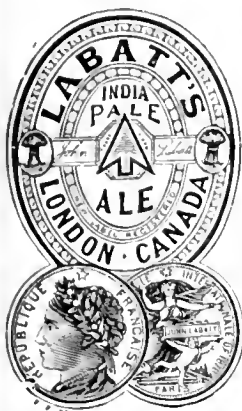
ARE PURE AND WHOLESOME

Recommended by testimonials
of Four Eminent Chemists.
TEN GOLD, SILVER and
BRONZE MEDALS.
HIGHEST AWARDS on this
Continent wherever exhibited.

MONTREAL—P. L. N. Beaudry, 127 De-
Lorimier Avenue.

TORONTO—J. Good & Co., Yonge Street.

ST. JOHN, N.B.—F. Smith, 24 Water Street



Royal Oil Co. —Toronto

Offer the following special lines
to the Drug Trade:

- XX Petrolatum, in 50 lb. tubs, 7c. per lb.
" " in 25 lb. tubs, 7½c. "
White Petrolatum, in 25 lb. and 50 lb. tubs
13c. pr lb.
Benzine, 5 gal. tins, 20c. per gal.
Extra Gasoline, 5 gal. tins, 25c. per gal.
Sewing Machine Oil, 5 gal. tins, 60c. per gal.
Sewing Machine Oil, in 2 oz. bottles, \$5.00
per gross.
Royal Hoof Ointment, in 1 lb. tins, 24 tins
to case, \$3.50 per case.
Raw Linseed Oil, by the barrel, 55c. per
gal. delivered.
Raw Linseed Oil, in 5 gal. tins, 58c. per
gal. f.o.b. Toronto.
Boiled Linseed Oil, by the barrel, 58c. per
gal. delivered.
Boiled Linseed Oil, in 5 gal. tins, 61c. per
gal. f.o.b. Toronto.
Pure Neatsfoot Oil, in 5 gal. tins, 90c. per
gal.
Olive Oil, Union Salad, 5 gal. tins, 90c.
per gal.
Olive Oil, for table, Pure Italian, \$2.00
per gal.
Sperm Oil, pure, in 5 gal. tins, \$2 per gal.
Castor Oil, Calcutta, cases, 6½c. per lb.
" " 5 gal. tins, 7c. per lb.
" French, 5 gal. tins, 7½c. per lb.
Sperm Candles, 36 lbs. to case, 10½c. per lb.
or affine " " " 11½c. per lb.
Spirits Turpentine, pure, by the barrel, 46c.
per gal. delivered.
Spirits Turpentine, pure, in 5 gallon tins,
49c. per gal. f.o.b. Toronto.
Wood Jacket, 5 gal. cans, 50c. each.



Terms: 30 days. No Discount.

**WE GUARANTEE PURE GOODS
WE GUARANTEE PROMPT SHIPMENT
WE GUARANTEE PERFECT SATIS-
FACTION**

We are the largest producers and manufac-
turers of Canadian oil, and the largest im-
porters of American oil in Canada.

Your orders will be appreciated.



ROYAL OIL COMPANY
Toronto

GEO. ANDERSON

Manager

We Pay Special Attention

TO THE
MAKING OF

Toilet Papers

SEVERE TESTS HAVE SHOWN THE SUPERIORITY OF
OUR TOILETS.

We have one machine running continually
on Tissues—and it makes good Tissue.

WE WOULD LIKE TO SEND YOU SAMPLES.

THE E.B. EDDY CO. LTD.
HULL MONTREAL TORONTO

A \$5 BOOK

Charles Austin Bates's new 700-page book, "Good Advertising," contains 175 chapters, and is intended for business men who want more business. It is of especial value to those advertisers who are not getting good returns from their advertising.

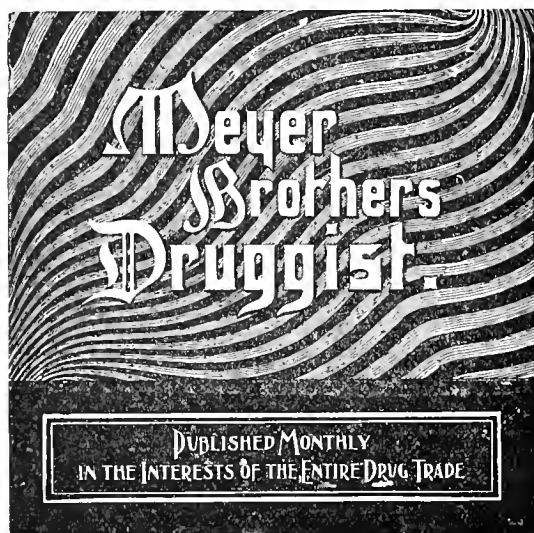
It is largely a book of facts. It tells how. It suggests. It advises. It gives experiences. It treats upon every phase of advertising. It tells all about type, borders, display, size of space to use, amount of money to spend, mediums to use. Ideas stick out of every page. The price is \$5 by prepaid express.

FOR 50 CTS.

We have taken 12 chapters of general interest from "Good Advertising," and made up a 96-page book, nicely bound in paper. The pages are exactly the size of the complete book, and the printing is from the same plates, in both instances. You can get a good idea of what "Good Advertising" is by reading this 96-page book. The price for it is 50 cents.

Each book contains a coupon good for 50 cents. If you like the 12 chapters and want the other 163, you can send us \$4.50 and the coupon, which will be accepted for 50 cents, and we will send you a handsomely bound volume of "Good Advertising." Thus, if you don't want the complete book, it will have cost you only 50 cents to find it out.

HOLMES PUBLISHING CO., 15 & 17 Beekman St., NEW YORK

MONEY For Canadian Druggists!

Subscription \$1.00 per year.

Sample Copy Free.

— ADDRESS —

MEYER BROTHERS DRUGGIST,

425 CLARK AVENUE.

ST. LOUIS, MO., U. S. A.

Attend the A. Ph. A. Convention at Montreal, August 12

**RADLAUER'S
ANTISEPTIC PERLES**

Of Pleasant Taste and Fragrance.

Non-Poisonous and strongly Antiseptic.

These Perles closely resemble the sublimates and carbolic acid in their antiseptic action. A preventive of diphtheric infection.

For the rational cleansing and disinfection of the mouth, teeth, pharynx, and especially of the tonsils, and for immediately removing disagreeable odors emanating from the mouth and nose.

A perfect substitute for mouth and teeth washes and gargles. Radlauer's Antiseptic Perles take special effect where swallowing is difficult in inflammation of the throat and tonsils, catarrh of the gums, periostitis dentalis, stomatitis mercurialis, salivation, angina, and thrush.

A few of the "Perles" placed in the mouth dissolve into a strongly antiseptic fluid of agreeable taste, cleanse the mouth and mucous membrane of the pharynx, and immediately remove the fungi, germs, and putrid substance accumulating about the tonsils, thereby preventing any further injury to the teeth.

METHOD OF APPLICATION:

Take 2-4 Perles, let them dissolve slowly in the mouth, and then swallow. Being packed in small and handy tins, Radlauer's Antiseptic Perles can always be carried in the pocket.

MANUFACTURED BY

S. RADLAUER - Pharmaceutical Chemist
BERLIN W., GERMANY

W. J. DYAS, Toronto, Ont., Wholesale Agent for Canada.

- EXCELSIOR -
Drug Mixer and Sifter

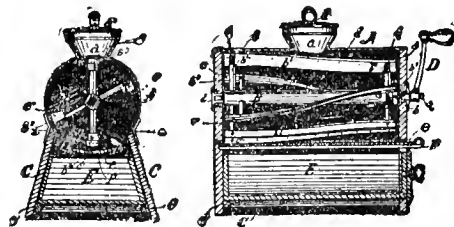
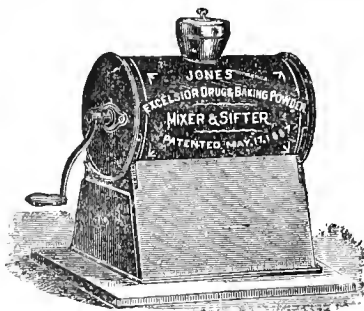
IMPROVED AND PERFECTED

For Druggists, Manufacturing Chemists, Perfumers, Etc.

Suitable for the manufacture of Baking Powder, Tooth Powder, Face Powder, Condition Powder, and for the Compound Powders of the Pharmacopœia.

These are made in Three Sizes—SUITABLE TO MIX 5 lbs., 10 lbs., and 25 lbs.—at \$6, \$12, and \$18 each

Easily Cleaned
and
No Wood
To Scent.



Dust Proof
and
Changeable
Sieves

RUBBER BRUSH RUBS ALL LUMPS OUT OF POWDER BEFORE IT IS SIFTED.

These Machines mix the powders thoroughly, and then force them through sieves of the proper fineness for the intended powders. Two Sieves, 40 and 60 mesh, with each Mixer.

This Mixer and Sifter is handled by the prominent wholesale druggists of the United States, and gives general satisfaction. Amongst those handling them are: Morrison & Phummer, Chicago; Bullock & Crenshaw, and Smith, Kline & Co., Philadelphia; W. H. Scheffelin & Co., and McKesson & Robbins, New York, and others.

The 10 lb. Mixer is specially adapted for the general requirements of the Retail Druggist.

WM. J. DYAS, Toronto, Ont., Sole Agent for Canada.

out into the light and examine. If the lines, when the negative is laid on white paper, do not show as absolutely bare glass, flood the negative with Belitski's potassium ferric oxalate reducer till the lines are cleared, and then well wash. Treat the negative to an acid and alum bath, or one of anthion, and again wash. If the ground is not dense enough, intensification must be resorted to. A very little experience will tell the operator this; in fact, after making, say, a couple of negatives and printing from them, he will know about how dense the negative should be.

There are two methods of intensification which are very suitable—the one bleaching with mercuric chloride, thorough washing and blackening with Monekhoven's potassio-silver-cyanide solution; the other mercuric chloride, followed after thorough washing with a five per cent. solution of Schlippe's salt, sulphantimonite of soda. The latter is to be preferred because the resultant image is bright red; and, therefore, of an extremely non-actinic color.

Attention to details and a little care is all that is required to enable anyone to make negatives on dry plates fully up to the standard of those turned out by the old wet collodion process, which is the process always used by professionals for this work, and, till last year, was used exclusively by the writer for this work.

Now a note as to printing such results; for paper prints, bromide or platinotype paper must be used. It is hopeless to expect to get satisfactory results on any silver printing-out paper. For lantern slides, slow plates specially made for black tones must be used.

Particular stress has been laid upon those points in which the beginner in copying is likely to fail; but it is hoped readers have not been impressed with an idea that there are enormous or insuperable difficulties. By constant practice some have become so perfect in this process—and anyone else may do the same—that in preference to copying long extracts, particularly if accompanied by diagrams from books or papers, they now photograph them and make a print in a few minutes on bromide paper, with considerable saving of time and labor.—*Pharmaceutical Journal*.

Advertising.

Practical Hints on Advertising.

Copyrighted, 1896, by CHARLES AUSTIN BATES, New York.

It is always quite fatiguing to me to hear some presumably bright business man complain that his competitors are frightful liars in their advertising, and that, therefore, he cannot compete with them. If there ever was arrant nonsense it is this. The American people are not fools, and this, I think, is particularly true of the women. I do not think that very

many women are fooled on bargain sales. Women, generally, know pretty well about how to judge the quality of a thing which they have occasion to buy. I do not believe that they are deluded very often. By the time they have been cheated once or twice in a certain store they will make up their minds not to go there again.

People very soon find out whether or not an advertiser tells the truth in his ads. If it is discovered that he puts things into his ads that are not in the store, he will find himself losing trade very rapidly.

There is not anything in advertising that pays quite so well as absolute truthfulness. The trouble with some of the business men who think that their competitors lie is that they are not sufficiently progressive to see the advantage of offering startling bargains, even at a loss.

A man told me the other day that he knew Wanamaker lied in his shoe advertising, because he knew he could not sell a certain shoe at the price he asked for it without losing money. He seemed to think that this was conclusive evidence; but it was not. If it costs ten dollars to advertise a certain lot of shoes, and you lose ten dollars on the shoes, the advertisement has cost twenty dollars. That's all there is of it. Charge the loss on the goods to the advertising account, and there you are. You can pretty soon tell whether it pays enough.

Tell the truth by all means; but if you can't find some reason why the goods you sell are honestly better than the goods Jones sells, you'd better make a change or go out of business. There's always some point to be made. You can say that there are many good dealers, but that none of them have the advantages you are talking about. When you talk to customers you always find some reason why they ought to buy your goods rather than any others. Put that into the ad.

There are many thousands of men and women who can write beautiful English, and yet who cannot write effective advertising.

The lack of information is what makes a great deal of advertising worthless. An advertisement is published primarily for the purpose of furnishing information about some place or thing. The more explicit that information is, the better the advertisement. An advertisement that doesn't tell anybody anything is no good, no matter how beautiful or well displayed it may be.

There isn't anything remarkable about good advertising, except its common sense. It is remarkable that common

sense should be remarkable, but it is so just the same.

It isn't at all necessary that it shall be finely written. What you say is more than how you say it. Some of the prettiest ads that I ever saw didn't sell goods, and some of the ugliest did. It isn't a question of appearance so much as it is a question of sense. To be sure, a sensible ad is all the better for being pretty. There is no reason why advertising should not be both handsome and sensible, but that kind of advertising is the most notable exception.

There is a better thing than a catalogue, and that is a small book, printed in good, readable type, on small pages, telling about all articles you handle, about terms, and about business methods, in a plain, common sense sort of way. That is a thing which every house in the country should have to hand to customers, and to send out by mail, either by itself or in conjunction with a catalogue.

Above all things, avoid the "spread eagle" style, and do not tell people how many square feet of floor space, how many showcases, and how many gas-jets there are in the room. A New York merchant recently said to me: "Everybody knows that we have counters, and showcases, and clerks, and goods in the store. What we want is something different from that—something interesting about the goods themselves."

There is no use publishing an ad that is so small nobody will see it. At the same time, I would rather have an ad of reasonable size, in a fixed and desirable position, properly illustrated and well constructed, than to have a great, big, overgrown space mixed up with a lot of other big, overgrown spaces. I would rather have a small, "swell" store on the principal corner of the town than have a ten-story warehouse in an alley.

Sometimes a business will get along very nicely with the use of only a few inches of space. At other times, when things are a little bit slow and dull, they need stirring up. That means increased space, and increased advertising effort. The total amount of space should be used just like the balance in a bank. It should be drawn on only when it is needed. When all space is bought and used in this way I believe that advertising generally will be more profitable.

The difference between a good ad and a poor one may rest in a very few words—a very slight change. The barb on a hook is a small thing, but it is what holds the fish. One may improve his advertising only a little, and still make all the difference between success and failure. "A chain is as strong as

its weakest link." Strength isn't in the kaleidoscopic tumbling together of words. Verbal pyrotechnics are all right in their place, but common sense and plain English will sell more goods. What you say is more than how you say it, though both are vital.

* * * *

People are walking around the streets with money sticking out of their pockets. They cannot find places enough to spend it. The man who reaches out with his advertisements and pulls them into his store is the one who is going to get the money. His less aggressive brethren will get what he leaves. Some of them may get left entirely.

BENZOL SULPHUR SOLUTION FOR ACNE.—A new and efficacious method of using sulphur for the treatment of pimples is described in *Gazette des Hopiteaux*. Dissolve sulphur in benzol, adding the sulphur in excess, and paint the diseased parts three or four times a day. The pustules are claimed to pale in two days, while after six days nothing but a faint pink spot remains

Action of the "X" Rays Upon Precious Stones.

Abel Buguet and Albert Gascard state that the transparency of aluminium for the "X" rays led them to think that its compounds might retain some of this property. Crystallized alumina, which, next to diamond, constitutes—under the names of corundum, ruby, sapphire, emerald, topaz, and cat's-eye—the majority of the most valuable stones, distinguishes the latter and its imitations from the above-mentioned stones. Torquoise (aluminium phosphate) is also thus certainly distinguished from its imitations. Natural aluminium mellate (mellite) is always as transparent as carbon. Fine pearls of small size are less opaque than false ones, and may be clearly distinguished by the "X" rays. For large pearls the distinction is not certain. —*Chem. News*.

PARTIES DESIRING A DRUG BUSINESS IN Southern California will do well to correspond with T. W. LORD, Druggists' Broker, 131 North Union Ave., Los Angeles, California. References: All Wholesale Druggists, Citizens Bank, Broadway Bank, Los Angeles, California, and the California Board of Pharmacy.

Until B.C. 432, the Greeks began the year at the winter solstice; after that, at the summer.

WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc., will be inserted once free of charge. Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.

SITUATIONS WANTED.

SITUATION REQUIRED. TWO (2) YOUNG MEN, four and five years' experience. Good dispensers. Graduates (Honor) Junior Term O.C.P. Sound telegraph operators. Strictly temperate. Open for engagement about June 1st. Now at college. State wages, to J. M. Hargreaves, Paisley.

SITUATIONS VACANT.

APPRENTICE WANTED TO LEARN THE DRUG business, about sixteen years of age. Must come well recommended. Box 97, Brantford.

FOR SALE.

DRUG BUSINESS IN MANITOBA FOR SALE. A profitable drug and stationery business doing about five thousand a year, in lively town, twelve hundred population, stock twenty-five hundred. Terms \$1,000 cash; balance six and twelve months secured. Dispensing done for three physicians. Prices have never been cut. Bona-fide purchaser may make application to the undersigned, but no communications will be considered unless \$1,000 cash is forthcoming. Address, THE MARTIN, BOLE & WYNNE CO., Wholesale Druggists, Winnipeg.

NELSON'S SODA FOUNTAINS AND SUPPLIES

458 PARLIAMENT STREET, TORONTO.

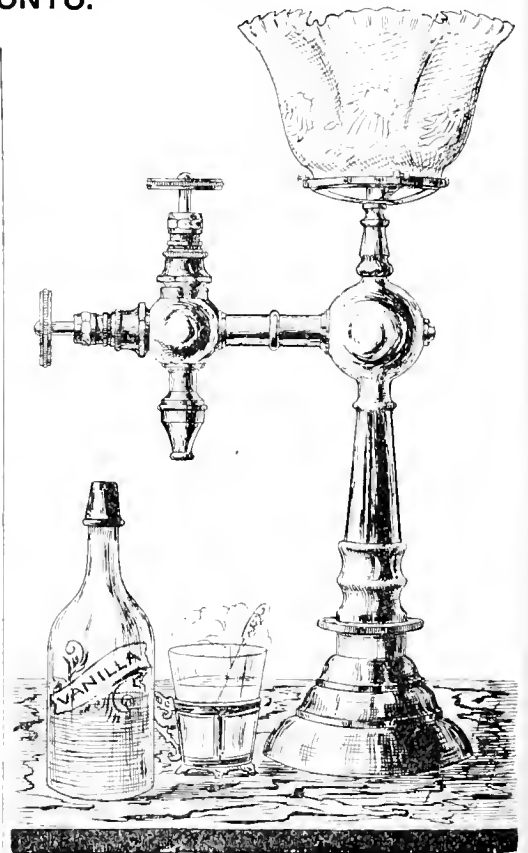


THE QUEEN PORTABLE FOUNT.

Patented May 22nd, 1894.

MR. TOOGOOD, of Prince Albert, writes: "As I have closed the season for the Fount, I thought I would write you a few lines and let you know how I panned out. My cash sales were \$263.00. The cost of my Fount and materials to run the drinks from it, \$160.00; therefore, I made Fount clear and \$103.00 over and above all costs, or otherwise sixty-five per cent. on my investment, or, in other words, \$103 and the Fount.

TORONTO, March 5th, 1896.
DEAR SIR,—The Fount I bought from you last year proved itself to be one of the best I have ever seen of its kind, gave the best of satisfaction, and I am sorry for one thing, which is that I did not buy one from you sooner. I can recommend your fountain to any one desiring such an article. I think your drawer system much better than the bottles. I am, yours respectfully,
JOHN MCKAY,
Chemist and Druggist,
305 YONGE STREET, TORONTO.



CHEAP WINTER FOUNT

WITH GAS ATTACHMENTS

MR. S. L. HOWE, Chemist, Thornbury, Ontario, says: "I have the Fountain running in FIRST-CLASS ORDER, and doing well. The Generator works satisfactorily. I may say that everything is WORKING WELL and MOST SATISFACTORILY. I hope you may do well, and sell lots of fountains

Ave Maria

The latest Aristocratic, Fascinating Perfume is creating a furore in the hearts of American Society.

Up-to-date Ideas in Perfumes

Pay

SEND IN YOUR ORDER. EASILY SOLD.
SATISFACTION GUARANTEED.

One Oz. Glass Str. Bottle, 2 in Box, \$4.80
" " Screw Top " 1 " " 5.00
Two " " " " 1 " " 8.00

.....
NOT SOLD IN BULK
.....

Send for Catalogue

Seely Manufacturing Co.

DETROIT, MICH.

WINDSOR, ONT.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to May 10th, 1896.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal.....	\$4 37	\$4 65
Methyl.....	1 90	2 00
ALLSPICE, lb.....	13	15
Powdered, lb.....	15	17
ALON oz.....	40	45
ANODYNE, Hoffman's hot, lbs.....	50	55
ARROWROOT, Bermuda, lb.....	50	55
St. Vincent, lb.....	15	18
BAL AM, Fir, lb.....	40	45
Copaiha, lb.....	65	75
Peru, lb.....	3 75	4 00
Tolu, can or less, lb.....	95	1 00
BARK, Barberry, lb.....	22	25
Bayberry, lb.....	15	18
Buckthorn, lb.....	15	17
Canella, lb.....	15	17
Cascara, Sagrada.....	25	30
Cascarilla, select, lb.....	18	20
Cassia, in mats, lb.....	18	20
Cinchona, red, lb.....	60	65
Powdered, lb.....	65	70
Yellow, lb.....	35	40
Pale, lb.....	40	45
Elm, selected, lb.....	18	20
Ground, lb.....	17	20
Powdered, lb.....	20	28
Hemlock, crushed, lb.....	18	20
Oak, white, crushed lb.....	15	17
Orange peel, bitter, lb.....	15	16
Prickly ash, lb.....	35	40
Sassafras, lb.....	15	16
Soap (quillaya), lb.....	13	15
Wild cherry, lb.....	13	15
BEANS, Calabar, lb.....	45	50
Tonka, lb.....	1 50	2 75
Vanilla, lb.....	8 00	8 50
BERRIES, Cubeb, sifted, lb.....	30	35
powdered, lb.....	35	40
Juniper, lb.....	7	10
Ground, lb.....	12	14
Prickly ash, lb.....	40	45
BUDS, Balm of Gilead, lb.....	55	60
Cassia, lb.....	25	30
BUTTER, Cacao, lb.....	75	80
CAMPHOR, lb.....	75	80
CANTHARIDES, Russian, lb.....	1 40	1 50
Powdered, lb.....	1 50	1 60
CAPSICUM, lb.....	25	30

Powdered, lb.....	\$ 30	35
CARBON, Bisulphide, lb.....	17	18
CARMINE, No. 40, oz.....	40	50
CASTOR, Fibre, lb.....	20 00	20 00
CHALK, French, powdered, lb.....	10	12
Precip, see Calcium, lb.....	10	12
Prepared, lb.....	5	6
CHARCOAL, Animal, powd., lb.....	4	5
Willow, powdered, lb.....	20	25
CLOVE, lb.....	16	17
Powdered, lb.....	17	18
COCHINEAL, S.G., lb.....	40	45
COLLOIDION, lb.....	75	80
Cantharidal, lb.....	2 50	2 75
CONFECTION, Senna, lb.....	40	45
Creosote, Wood, lb.....	2 00	2 50
CUTTLEFISH BONE, lb.....	25	30
DEXTRINE, lb.....	10	12
DOVER'S POWDER, lb.....	1 50	1 60
ERGOT, Spanish, lb.....	75	80
Powdered, lb.....	90	1 00
Ergotin, Keith's, oz.....	2 00	2 10
EXTRACT, Logwood, bulk, lb.....	13	14
Pounds, lb.....	14	17
FLOWERS, Arnica, lb.....	15	20
Calendula, lb.....	55	60
Chamomile, Roman, lb.....	25	30
German, lb.....	40	45
Elder, lb.....	20	22
Lavender, lb.....	12	15
Rose, red, French, lb.....	1 60	2 00
Rosemary, lb.....	25	30
Saffron, American, lb.....	65	70
Spanish, Val'a, oz.....	1 00	1 25
GELATINE, Cooper's, lb.....	75	80
French, white, lb.....	35	40
GLYCERINE, lb.....	22	25
GUARANA, lb.....	200	2 25
Powdered, lb.....	2 25	2 50
GUM ALOES, Cape, lb.....	18	20
Barbadoes, lb.....	30	50
Succotrine, lb.....	65	70
Asafetida, lb.....	40	45
Arabic, 1st, lb.....	70	75
Powdered, lb.....	80	95
Sifted sorts, lb.....	45	50
Sorts, lb.....	30	35
Benzoin, lb.....	50	1 00
Catechu, Black, lb.....	9	20
Gamboge, powdered, lb.....	1 20	1 25
Guaiac, lb.....	50	1 00
Powdered, lb.....	60	95
Kino, true, lb.....	2 00	2 25

Myrrh, lb.....	\$ 45	\$ 48
Powdered, lb.....	55	60
Opium, lb.....	3 80	00
Powdered, lb.....	5 50	5 75
Scammony, pure Resin, lb.....	12 80	13 00
Shellac, lb.....	40	45
Bleached, lb.....	45	50
Spruce, true, lb.....	30	35
Tragacanth, flake, 1st, lb.....	85	90
Powdered, lb.....	1 10	1 20
Sorts, lb.....	55	75
Thus, lb.....	8	10
HERR, Althea, lb.....	27	30
Bitterwort, lb.....	30	40
Burdock, lb.....	16	18
Boneset, ozs, lb.....	15	17
Catnip, ozs, lb.....	17	20
Chiretta, lb.....	25	30
Coltsfoot, lb.....	20	38
Feverfew, ozs, lb.....	53	55
Grindelia robusta, lb.....	45	50
Horehound, ozs, lb.....	18	20
Jaborandi, lb.....	45	50
Lemon Balm, lb.....	38	40
Liverwort, German, lb.....	38	40
Lobelia, ozs, lb.....	15	20
Motherwort, ozs, lb.....	20	22
Mullein, German, lb.....	17	20
Pennyroyal, ozs, lb.....	18	20
Peppermint, ozs, lb.....	21	22
Rue, ozs, lb.....	30	35
Sage, ozs, lb.....	18	20
Spearmint, lb.....	21	25
Thyme, ozs, lb.....	18	20
Tansy, ozs, lb.....	15	18
Wormwood, oz.....	20	22
Yerba Santa, lb.....	38	44
HONEY, lb.....	13	15
HOPS, fresh, lb.....	20	25
INDIGO, Madras, lb.....	75	80
INSECT POWDER, lb.....	30	32
ISINGLASS, Brazil, lb.....	2 00	2 10
Russian, true, lb.....	6 00	6 50
LEAF, Aconite, lb.....	25	30
Bay, lb.....	18	20
Belladonna, lb.....	25	30
Buchu, long, lb.....	50	55
Short, lb.....	25	27
Coca, lb.....	35	40
Digitalis, lb.....	15	20
Eucalyptus, lb.....	18	20
Hyoscyamus.....	20	25
Matico, lb.....	70	75

Senna, Alexandria, lb.	\$ 25	\$ 30	Queen of the Meadow, lb.	\$ 18	\$ 20	Valerianate, oz.	\$ 55	\$ 60
Tinnevely, lb.	15	25	Rhatany, lb.	20	30	AMYL, Nitrite, oz.	16	18
Stramonium, lb.	20	25	Rhubarb, lb.	75	2 50	ANTINERVIN, oz.	85	00
Uva Ursi, lb.	15	18	Sarsaparilla, Hond, lb.	40	45	ANTIKAMNIA,	1 30	1 35
LECHES, Swedish, doz.	1 00	1 10	Cut, lb.	50	55	ANTIPYRIN, oz.	1 10	1 20
LICORICE, Solazzi,	45	50	Senega, lb.	55	65	AKISTOL, oz.	1 85	2 00
Pignatelli,	35	40	Squill, lb.	13	15	ARSENIC, Donovan's sol., lb.	25	30
Grasso,	30	35	Stilllingia, lb.	22	25	Fowler's sol., lb.	10	13
V & S—Sticks, 6 to 1 lb., per lb.	27	30	Powdered, lb.	25	27	Iodide, oz.	50	55
“ Purity, 100 sticks in box	75	75	Unicorn, lb.	38	40	White, lb.	6	7
“ Purity, 200 sticks in box	1 50	1 50	Valerian, English, lb. true.	20	25	ATROPINE, Sulph. in $\frac{1}{2}$ ozs. Soc.,	6 00	6 25
“ Acme Pellets, 5 lb. tins	2 00	2 00	Virginia, Snake, lb.	40	45	oz.	35	40
“ Lozenges, 5 lb. tins.	2 00	2 00	Yellow Dock, lb.	15	18	BISMUTH, Ammonia-citrate, oz.	50	55
“ Tar, Licorice, and Tolu,			RUM, Bay, gal.	2 50	2 75	Iodide, oz.	20	25
5 lb. tins.	2 00	2 00	Essence, lb.	3 00	3 25	Salicylate, oz.	20	25
LUPULIN, oz.	30	35	SACCHARIN, oz.	1 25	1 50	Subcarbonate, lb.	1 80	2 00
LYCOPODIUM, lb.	70	80	SEED, Anise, Italian, sifted, lb.	13	15	Subnitrate, lb.	1 50	1 60
MACE, lb.	1 20	1 25	Star, lb.	35	40	BORAX, lb.	7	8
MANNA, lb.	1 60	1 75	Burdock, lb.	30	35	Powdered, lb.	8	9
Moss, Iceland, lb.	9	10	Canary, bag or less, lb.	5	6	BROMINE, oz.	8	13
Irish, lb.	12	13	Caraway, lb.	10	13	CADMIUM, Bromide, oz.	20	25
MUSK, Tonquin, oz.	46 00	50 00	Cardamom, lb.	1 25	1 50	Iodide, oz.	45	50
NUTGALLS, lb.	21	25	Celery,	25	30	CAFFEINE, oz.	55	60
Powdered, lb.	25	30	Colchicum,	50	60	Citrate, oz.	50	55
NUTMEGS, lb.	1 00	1 10	Coriander, lb.	10	12	CALCIUM, Hypophosphite, lb.	1 50	1 60
NUX VOMICA, lb.	10	12	Cumin, lb.	15	20	Iodide, oz.	95	1 00
Powdered, lb.	25	27	Fennel, lb.	15	17	Phosphate, precip., lb.	35	38
OAKUM, lb.	12	15	Fenugreek, powdered, lb.	7	9	Sulphide, oz.	5	6
OINTMENT, Merc., lb. $\frac{1}{2}$ ind $\frac{1}{2}$	70	75	Flax, cleaned, lb.	3 $\frac{1}{2}$	4	CERIUM, Oxalate, oz.	10	12
Citrine, lb.	45	50	Ground, lb.	4	5	CHINOLINE, oz.	15	18
PARALDEHYDE, oz.	20	22	Hemp, lb.	5	6	CHLORAL, Hydrate, lb.	1 25	1 30
PEPPER, black, lb.	12	13	Mustard, white, lb.	11	12	Croton,	75	80
Powdered, lb.	15	16	Powdered, lb.	15	20	CHLOROFORM, lb.	60	1 90
PITCH, black, lb.	3	4	Pumpkin,	25	30	CINCHONINE, sulphate, oz.	25	30
Bergundy, true, lb.	10	12	Quince, lb.	65	70	CINCHONINE, Sulph., oz.	15	20
PLASTER, Calined, bbl. cash.	25	3 25	Rape, lb.	8	9	COCAINE, Mur., oz.	5 50	6 50
Adhesive, yd.	12	13	Strophanthus, oz.	50	55	CODEIA, $\frac{1}{2}$ oz.	70	75
Belladonna, lb.	65	70	Worm, lb.	22	25	COLLOIDION, lb.	65	70
Galbanum Comp., lb.	80	85	SEIDLITZ MIXTURE, lb.	25	30	COPPER, Sulph., (Blue Vitriol) lb.	6	7
Lead, lb.	25	30	SOAP, Castile, Mottled, pure, lb.	10	12	Iodide, oz.	65	70
POPPY HEADS, per 100.	1 00	1 10	White, Conti's, lb.	15	16	COPPERAS, lb.	1	3
ROSIN, Common, lb.	2 $\frac{1}{2}$	3	Powdered, lb.	25	40	DIURETIN, oz.	1 60	1 65
White, lb.	3 $\frac{1}{2}$	4	Green (Sapo Viridis), lb.	25	25	ETHER, Acetic, lb.	75	80
RESORCIN, white, oz.	25	30	SPERMACETI, lb.	65	70	Sulphuric, lb.	40	50
ROCHELLE SALT, lb.	28	30	TURPENTINE, Chian, oz.	75	80	EXALGINE, oz.	1 00	1 10
ROOF, Aconite, lb.	22	25	Venice, lb.	10	12	HYOSC-YAMINE, Sulph., crystals, gr.	25	30
Althea, cut, lb.	30	35	WAX, White, lb.	50	75	IODINE, lb.	4 75	5 50
Belladonna, lb.	25	30	Yellow,	40	45	IODOFORM, lb.	6 00	7 00
Blood, lb.	15	16	WOOD, Guaiac, rasped.	5	6	IODOL, oz.	1 40	1 50
Bitter, lb.	27	30	Quassia chips, lb.	10	12	IRON, by Hydrogen.	80	85
Blackberry, lb.	15	18	Red Saunders, ground, lb.	5	6	Carbonate, Precip., lb.	15	16
Burdock, crushed, lb.	18	20	Santal, ground, lb.	5	6	Saccha, lb.	30	35
Calamus, sliced, white, lb.	20	25				Chloride, lb.	45	55
Canada Snake, lb.	30	35				Sol., lb.	13	16
Cohosh, black, lb.	15	20				Citrate, U.S.P., lb.	90	1 00
Colchicum, lb.	40	45				And Ammon., lb.	70	75
Columbo, lb.	20	22				And Quinine, lb.	1 50	3 00
Powdered, lb.	25	30				Quin. and Stry., oz.	18	30
Coltsfoot, lb.	38	40				And Stychnine, oz.	13	15
Comfrey, crushed, lb.	20	25				Dialyzed, Solution, lb.	50	55
Curcuma, powdered, lb.	13	14				Ferrocyanide, lb.	55	60
Dandelion, lb.	15	18				Hypophosphites, oz.	25	30
Elecampane, lb.	15	20				Iodide, oz.	40	45
Galangal, lb.	15	18				Syrup, lb.	40	45
Gelsemium, lb.	22	25				Lactate, oz.	5	6
Gentian or Genitan, lb.	9	10				Permanganate, solution, lb.	15	16
Ground, lb.	10	12				Phosphate scales, lb.	1 25	1 30
Powdered, lb.	13	15				Sulphate, pure, lb.	7	9
Ginger, African, lb.	18	20				Exsiccated, lb.	8	10
Po., lb.	20	22				And Potass. Tartrate, lb.	80	85
Jamaica, blehd, lb.	27	30				And Ammon Tartrate, lb.	80	85
Po., lb.	30	35				LEAD, Acetate, white, lb.	13	15
Ginseng, lb.	4 50	4 75				Carbonate, lb.	7	8
Golden Seal, lb.	75	80				Iodide, oz.	35	40
Gold Thread, lb.	90	95				Red, lb.	7	9
Hellebore, white, powd., lb.	12	15				LIME, Chlorinated, bulk, lb.	4	5
Indian Hemp.	18	20				In packages, lb.	6	7
Ipecac, lb.	1 75	2 00				LITHIUM, Bromide, oz.	30	35
Powdered, lb.	2 00	2 25				Carbonate, oz.	30	35
Jalap, lb.	55	60				Citrate, oz.	25	30
Powdered, lb.	60	65				Iodide, oz.	50	55
Kava Kava, lb.	40	90				Salic ate, oz.	35	40
Licorice, lb.	12	15				MAGNESIUM, Calc., lb.	55	60
Powdered, lb.	13	15				Carbonate, lb.	18	20
Mandrake, lb.	13	18				Citrate, gran., lb.	35	40
Masterwort, lb.	16	40				Sulph. (Epsom salt), lb.	1 $\frac{3}{4}$	3
Orris, Florentine, lb.	30	35				MANGANESE, Black Oxide, lb.	5	7
Powdered, lb.	40	45				MENTHOL, oz.	55	66
Pareira Brava, true, lb.	40	45				MERCURY, lb.	75	80
Pink, lb.	40	45				Ammon (White Precip.),	1 25	1 30
Parsley, lb.	30	35				Chloride, Corrosive, lb.	85	90
Pleurisy, lb.	20	25				Calomel, lb.	1 00	1 10
Poke, lb.	15	18				With Chalk, lb.	60	65

Cod-Liver Oil Report.

From JOH. RYE HOFSTAD, Tromsø, Norway.

April 13th, 1896.

Summary of official statistics:

Fish	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895
thous'nds	5770	5711	5715	5710	5710	5710	5710	5710	5710	5710	5710
Cod liver oil	28527	28511	28517	28517	28517	28517	28517	28517	28517	28517	28517

Aver. prod. cod liver oil 1885-1894 (i.e., the seven "fat" years) 27,004 hbl.
 Aver. prod. cod liver oil 1895 26,722 " "
 Production, 1896 up till to-day 33,432 " "
 Deficiency to be filled by Finmarken 12,074 " "
 Average production at Finmarken, 1883-1895 24,717 " "

There has been very little done in cod-liver oil this month. Quotations have been ranging from 225 down to 215 sh., 210 sh. representing the average cost price of good Lofoten oil. There is hardly any chance of prices coming below that figure, even if Finmarken should turn out a fair quantity.

April 22nd, 1896.

Lofoten fishery will be officially closed one of these days, and I then shall give the exact final figures for all fisheries.

Finmarken: Last week's fishing has been very poor, partly owing to bad weather, but principally on account of scarcity of fish.

Production of cod-liver oil now aggregates 14482 hectl. crude oil, equal to about 10,000 barrels refined.

Market unchanged. Demand has been rather dull lately, but holders are all disinclined to yield to lower prices, and seem to be determined to stock their oil till autumn rather than selling at losing figures now.

Quotations ranging from 210 to 215 sh. for best non-freezing Lofoten oil. Finmarken oil may be had considerably cheaper.

Ammonia in Cork Stoppers.

Dr. P. Liechti having suggested that the ammonia present in cork stoppers may lead to fallacious results in water examinations, Van Ledden Hulsebosch criticizes the doctor's experiments and conclusions and shows that:

(1) Cork may contain a trace of ammonia, especially if the quality be poor.

(2) The fact that the aqueous extract of the cork yields a color with Nessler's reagent does not justify concluding that ammonia is present.

(3) In bottling a specimen of drinking water for analysis, we may continue to use cork stoppers without misgiving, as the slight contact of the water with the stopper will not materially modify the proportion of ammonia in the water.—*Bulletin of Pharmacy.*

Double flowers are generally the result of cultivation, and always an abnormal growth.

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the special consideration of the Business Notices.

In his palmy days John Bright was fond of expatiating on the wonderful growth of the United States in material resources, and of demonstrating that its wealth was multiplying by leaps and bounds. We are reminded of the orator's favorite theme by the announcement that Parke, Davis & Co. have opened two new branch houses to satisfy the rapidly growing demand for their preparations—one in New Orleans and another in Baltimore.

and by the receipt of their '96 price list, comprising over six thousand items and twenty nine distinct lines of preparations! It is amazing how this house has grown within the past fifteen years. It has been erecting laboratories by the acre, multiplying its branches and agencies, and increasing its output of pharmaceutical preparations by the ton!

The ground for this amazing prosperity is not hard to find—scrupulous integrity, dignified, honorable business methods, and a strenuous desire to treat professional men in accordance with professional methods. All the world knows that the label of this firm is a warrant of purity, activity, and precision in the contents of the container, and the physician realizes that in his grim battle with disease he can depend upon Parke, Davis & Co.'s preparations every time!

Some Big Figures.

On one of the cold, blustery days this winter, when business was quiet at the Tanglefoot office, one of the assistants of a mathematical turn of mind figured out that the output of Tanglefoot for 1895 was capable of catching twenty-seven thousand million flies, which, if placed end to end, would reach around the earth at the equator fifteen times, or from the earth to the moon and three-quarters of the way back.

Parchment Powder Papers.

A. G. Elliot & Co., Philadelphia, advertise in this issue an article which is indispensable in the dispensing department of any drug store. We refer to their superior parchment paper, which is the only suitable wrapper for hygroscopic powders, and is also adapted for all wrapping purposes where neatness is desired. Read the advertisement carefully.

Druggists' Boxes, etc.

Attention is called to the advertisement of the Toronto Box Co. in this issue. They are manufacturers of boxes, cartons,

etc., specially adapted to the drug trade, and solicit your custom.

Show Cases and Fittings.

The Toronto Show Case Co. are offering a splendid assortment of show cases and wall fittings, finished in wood or metal and of the latest designs. Write them if in want of anything in their line.

Bird Seed

To secure and retain good customers, you must sell only the best. In no case is this more essential than in bird seeds. Some of that offered is totally unfit to use, but not so with Brock's, which is guaranteed pure and of the best quality only. See advt.

Scales.

C. Wilson & Sons are offering to the drug trade a full line of platform and other scales, show cases, etc., at close figures. See their advt. on page

Balm Medicine Co.

This firm, which are "pushers," in the sense known to patent medicine dealers, are advertising their goods largely, and have created a demand which ensures the continuance of a sale of their goods. Write them as to their methods of advertising, and mention THE DRUGGIST.

Books

A COURSE OF HOME STUDY FOR PHARMACISTS. First Lessons in the Study of Pharmacy. By Oscar Oldberg, Phar. D., Professor of Pharmacy and Director of the Pharmaceutical Laboratories in the School of Pharmacy of Northwestern University. Second edition, revised and enlarged, 150 illustrations. Publishers, The W. T. Keever Company, Chicago. To those students in pharmacy who have not the time during business hours to settle down to the study of the regular text-books, this work will be found very valuable in furnishing for home reading a course of first lessons in pharmacy, pharmaceutical physics, chemistry, and materia medica. It is essentially a *first book* for young pharmacists, written by one who thoroughly understands his subject, and also how to impart the instruction required. We believe it is the only book of the kind published, and it certainly furnishes a *desideratum* which every student in pharmacy must appreciate. Its 550 pages are divided into four parts, consisting in all of ninety chapters, treating in a full and comprehensive way on all the subjects with which the pharmaceutical student must make himself familiar. The work is published at \$3 net, and will be sent post paid by the publishers on receipt of price.

Iodide, Proto, oz.....	\$ 35	\$ 40	Iodide, oz.....	\$ 40	\$ 43	Geranium, oz.....	\$1 75	\$1 80
Bin., oz.....	25	30	Salicylate, lb.....	1 00	1 10	Rose, lb.....	3 20	3 50
Oxide, Red, lb.....	1 15	1 20	Sulphate, lb.....	2	5	Juniper berries (English), lb...	4 50	5 00
Pill (Blue Mass), lb.....	70	75	Sulphite, lb.....	8	10	Wood, lb.....	70	75
MILK SUGAR, powdered, lb.....	30	35	SOMNAL, oz.....	85	00	Lavender, Chris. Fleur, lb....	3 00	3 50
MORPHINE, Acetate, oz.....	1 75	1 80	SPIRIT NITRE, lb.....	35	65	Garden, lb.....	1 50	1 75
Muriate, oz.....	1 75	1 80	STRONTIUM, Nitrate, lb.....	18	20	Lemon, lb.....	1 90	2 00
Sulphate, oz.....	1 80	1 85	STRYCHNINE, crystals, oz.....	80	85	Lemongrass, lb.....	1 50	1 60
PEPSIN, Saccharated, oz.....	35	40	SULFONAL, oz.....	40	42	Mustard, Essential, oz.....	60	65
PHENACETINE, oz.....	40	42	SULPHUR, Flowers of, lb.....	2½	4	Neroli, oz.....	4 25	4 50
PILOCARPINE, Muriate, grain....	35	38	Pure precipitated, lb.....	13	20	Orange, lb.....	2 75	3 00
PIPERIN, oz.....	1 00	1 10	TARTAR EMEIC, lb.....	50	55	Sweet, lb.....	2 75	3 00
PHOSPHORUS, lb.....	90	1 10	THYMOL (Thymic acid), oz.....	55	60	Origanum, lb.....	65	70
POTASSA, Caustic, white, lb.....	60	65	VERATRINE, oz.....	2 00	2 10	Patchouli, oz.....	80	85
POTASSIUM, Acetate, lb.....	35	40	ZINC, Acetate, lb.....	70	75	Pennyroyal, lb.....	2 50	2 75
Bicarbonate, lb.....	15	17	Carbonate lb.....	25	30	Peppermint, lb.....	3 00	3 25
Bichromate, lb.....	14	15	Chloride, granular, oz.....	13	15	Pimento, lb.....	2 60	2 75
Bitrat (Cream Tart.), lb.....	29	30	Iodide, oz.....	60	65	Rhodium, oz.....	80	85
Bromide, lb.....	65	70	Oxide, lb.....	13	60	Rose, oz.....	7 50	11 00
Carbonate, lb.....	12	13	Sulphate, lb.....	9	11	Rosemary, lb.....	70	75
Chlorate, Eng., lb.....	18	20	Valerianate, oz.....	25	30	Rue, oz.....	25	30
Powdered, lb.....	20	22				Sandalwood, lb.....	5 50	7 50
Citrate, lb.....	70	75	ESSENTIAL OILS.			Sassafras, lb.....	75	80
Cyanide, lb.....	40	50	OIL, Almond, bitter, oz.....	75	80	Savin, lb.....	1 00	1 75
Hypophosphites, oz.....	10	12	Sweet, lb.....	50	60	Spearmint, lb.....	3 75	4 00
Iodide, lb.....	4 00	4 10	Amber, crude, lb.....	40	45	Spruce, lb.....	65	70
Nitrate, gran, lb.....	8	10	Rec't, lb.....	60	65	Tansy, lb.....	4 25	4 50
Pernanganate, lb.....	40	45	Anise, lb.....	3 75	3 90	Thyme, white, lb.....	1 80	1 90
Prussiate, Red, lb.....	50	55	Bay, oz.....	50	60	Wintergreen, lb.....	2 75	3 00
Yellow, lb.....	32	35	Bergamot, lb.....	3 75	4 00	Wormseed, lb.....	3 50	3 75
And Sod. Tartrate, lb.....	25	30	Cade, lb.....	90	1 00	Wormwood, lb.....	4 25	4 50
Sulphuret, lb.....	25	30	Cajuput, lb.....	1 60	1 70			
PROPYLAMINE, oz.....	35	40	Capsicum, oz.....	60	65	FIXED OILS.		
QUININE, Sulph. bulk.....	35	38	Caraway, lb.....	2 75	3 00	CASIOR, lb.....	8	10
Ozs., oz.....	38	42	Cassia, lb.....	3 30	3 50	COD LIVER, N.F., gal.....	2 00	2 10
QUINIDINE, Sulphate, ozs., oz ..	10	20	Cedar.....	55	85	Norwegian, gal.....	3 00	3 25
SALICIN, lb.....	75	4 00	Cinnamon, Ceylon, oz.....	2 75	3 00	COTTONSEED, gal.....	1 10	1 20
SANTONIN, oz.....	20	22	Citronelle, lb.....	80	85	LARD, gal.....	90	1 00
SILVER, Nitrate, cryst, oz.....	90	1 00	Clove, lb.....	1 10	1 20	LINSEED, boiled, gal.....	62	65
Fused, oz.....	1 00	1 10	Copaiba, lb.....	1 75	2 00	Raw, gal.....	60	62
SODIUM, Acetate, lb.....	30	35	Croton, lb.....	1 50	1 75	NEATSFOOT, gal.....	1 20	1 30
Bicarbonate, kgs., lb.....	2 75	3 00	Cubeb, lb.....	2 50	3 00	OLIVE, gal.....	1 20	1 25
Bromide, lb.....	65	70	Cumin, lb.....	5 50	6 00	Salad, gal.....	2 50	2 60
Carbonate, lb.....	3	6	Edigeron, oz.....	20	25	PAIM, lb.....	12	13
Hypophosphite, oz.....	10	12	Eucalyptus, lb.....	1 50	1 75	SPERM, gal.....	1 35	1 40
Hyposulphite, lb.....	3	6	Fenne, lb.....	1 00	1 75	TURPENTINE, gal.....	60	65

Magazines.

The publishers of *Frank Leslie's Popular Monthly* have brought out a most excellent portrait in colors of General Robert E. Lee, which serves as a frontispiece to the May number of that magazine. The portrait is pronounced by the friends of General Lee to be the best likeness ever published. It is issued in connection with the great Lee series of articles now running in *Frank Leslie's Popular Monthly*, and which are attracting such widespread attention.

Twenty pages of *The Housekeeper* present an abundance of good reading, classified under appropriate headings, in the several departments of Literary, Fashions, Fancy Work, Home Talks, Mothers' Council, Home Remedies, Floriculture, Money Making for Women, Our Young Folks, Household Helps, Our Door Yard, Miscellany, etc., etc. The paper is issued twice a month, consists of twenty large pages, and has been published for twenty years at Minneapolis, Minn. It is the only "domestic" semi monthly published in America. The subscription price is \$1 per year. It is devoted to the home and home-making.

Drug Reports.

Canada.

The general report of last month's business has been as satisfactory as usual at this season of the year, when farmers are busy with seeding and city people with house-cleaning. There are no marked changes in value to note. Hellebore is in small demand. Blue vitriol is more brisk at advanced prices. Paris green is not much called for yet; and, with prices firm at advance, and future uncertain, very little is changing hands. Moth camphor balls good demand, we notice by Brantford papers. This article is being retailed at 5c. a lb. (There is a lesson in this for those indifferent members of the Retail Association.) There are also several substitutes for camphor having a good sale, which may have had the effect of camphor weakening in price. Gum tragacanth and arabics are higher on account of trouble in Egypt.

Cream tartar dropped a little during the month, but has again resumed high price.

Quinine, pot. bromide, pot. iodide, unchanged.

England.

London, April 27th, 1896.

There has not been much demand in either chemical or drug market, and prices have consequently given way slightly in many instances. Cod-liver oil appears to have reached its limit in the upward direction at last, and in the absence of demand is slipping backward. Oil of cassia is easier, and lower rates are quoted for oil of aniseed, balsam of tolu, Canada balsam, etc. Copaiba balsam, however, is firmer, and sassafras oil dearer. Higher prices are also asked for permanganate of potassium. Camphor is falling, and glycerine is easier. Quinine and cocaine are dull, the latter being threatened by a new anæsthetic called "eucaine," which is claimed to be superior in effect at half the cost.

SODIUM CHLORIDE FOR RINGWORM.—Reilly states (*Brit. Med. Journ.*) that for the past seven years he has used concentrated solution of common salt for treating ringworm. He applies the solution in the evening and washes the spot next morning with boric acid soap. In all cases the tinea is cured in less than four weeks.

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VIII.

TORONTO, JUNE, 1896.

No. 6

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

Subscription \$1 per year in advance.

Avertising rates on application.

The CANADIAN DRUGGIST is issued on the 15th of each month, and all matter for insertion should reach us by the 5th of the month.

New advertisements or changes to be addressed

Canadian Druggist,

117 1/2 RICHMOND ST. WEST,
TORONTO, ONT.

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The City Druggist of To-day.

We are not desirous of doing our city brethren an injury by commenting upon the state of trade as they find it at the present time, but, if we can prevent any others from crowding an already over-crowded field, we may have accomplished a worthy end. The drug trade of any of our large cities is, undoubtedly, in a very unhealthy condition. There are existent at least one-third more stores than are required. The proximity of the college has done much to generate an over-crowded condition. The clerk whose father has done well on his farm, or in some village or town store, is anxious to do credit to the name he bears, and embarks with a thousand or two in some business which a convenient corner makes speculatively valuable as a drug stand. It takes him a year or two to learn that high rents do not always accompany high profits and an extensive business. While he is learning his lesson, some freshman is preparing for the same ordeal through which he has passed and relieves him of his burden when he has exhausted his resources. A continued renewal of new men with fresh capital keeps going businesses which, for the sake of the entire trade concerned, would be better out of existence. Old established houses in the heart of the city, where rents are excessive, have to withstand competition from large dry goods houses as well as that furnished by renewal capital in outlying stores, and the two combined makes their task to hold their trade a rather difficult one. Added to these difficulties, we find that the volume of trade done by any of them during the present depressed times is, at least, 25 per cent. less than when times were more prosperous, and that, coupled with this, profits are from 10 to 20 per cent. less than formerly.

However hopeful human nature may be, it is rather difficult to deduce from these facts a reasonable prospect of good times for city trade for a long time

to come, and the inevitable conclusion must be arrived at that only such city druggists as are exceptionally favored by means, abilities, location, and medical support, can hope to make more than a reasonable living.

Those who have maintained their connection with the drug trade for such a period that it would be reasonable to expect them to retire with a competence find that their prospects of doing so are becoming more remote year by year, and the longer they stick to it the smaller their bank account becomes.

Unfortunately for the druggist, his peculiar vocation unfits him for any other unless he possesses natural adaptability for something else, and even when he does he dreads taking chances.

The drug trade of the entire province would stand a good deal of rejuvenating but the chances for the cities being early participators in any revival in trade are too remote to encourage any of our young friends who may be thinking of starting in them. Should there be any who may be thinking of doing so, we would suggest that they first interview some of the older resident druggists, or even a disinterested wholesaler, and learn without having to pay for their experience what the chances were.

Ontario Society of Retail Druggists.

In addition to the names given in our issue of last month, the following have been added to the "Friendly List":

Bauer & Black, Chicago.

H. B. Fould, New York.

The following statement from the secretary, explanatory of the agreement made between the retail and wholesale associations should be carefully read by every druggist. There is nothing in the agreement which should not be rigidly adhered to, and it is in the interest of all parties that strict faith should be kept in this matter and that no cause for complaint should exist. If such be the case the present position will not only be maintained but strengthened, and a state of affairs established which will not only be

a credit to the trade, but will also be a means of securing more profitable basis of business.

AN EXPLANATION OF THE RETAIL AGREEMENT.

First clause: We, the retail druggists of the Province of Ontario, agree to buy our patent and proprietary medicines solely from wholesale druggists and jobbers, and we further agree to co-operate with each other in every legitimate way to promote our common interests and our profession in general.

The reason for the insertion of this clause in our retail agreement was that the wholesale druggists were making complaints that retail druggists were buying their patent and proprietary medicines direct from the manufacturers, and thus the wholesale druggists received no profit or commission on sales thus made, and so it was thought desirable to enlist the sympathies and assistance of the wholesale druggist by the retail druggist promising in the future to buy all patent and proprietary medicines through wholesale druggists. Nearly six hundred and fifty retail druggists have signed this agreement that they will buy all their patent and proprietary medicines from the wholesale druggists, and still complaints reach me from the wholesale druggists that retail druggists are buying their patents direct from the manufacturers. I would request of the retail druggists, if there are any who have thus transgressed their agreement, that in future they will buy their patents through or from the wholesale druggists, and not direct from the manufacturers. By thus keeping faith with the wholesale druggists is the only way to retain their sympathies and assistance. Let us, as retailers, act our part manly and honestly, let us live up to the very letter of our agreement. More of the success of the society depends upon the individual and the united action of the retailers themselves than upon any other branch of the business. Therefore, let us be faithful to our agreement. We admit that this is the retail druggists sacrifice, that it is hard for the retail druggist who has been in the habit of buying jobbers' quantities to see the wisdom in paying the wholesale druggist an increased price for patents that they have been accustomed to buy for a less price direct from the manufacturers, but if the druggist who resides where cutting exists will think of the profit on each bottle that he is losing now, and if he sees a chance of regaining this lost profit, he should not object to paying the wholesale druggist the slight increase in price on his patents. On the other hand, take the druggist who lives where no cutting is being done, still he is losing sales of patent medicines every day by his customers sending away for their medicines to other cities where prices are cut; thus he is losing sales that he ought to have, and if he sees a chance that this kind of business will be stopped he should not object to paying the slightly

increased price to the wholesale druggist for his patent medicines. And, further, we agree to help each other in every legitimate way to promote our common interests and our profession in general. Let us not lose sight of this fact, that we are in duty bound to assist each other. We ought to be pleased to see our opposition druggist prosper. How many are glad to hear of the success and prosperity of their opposition? For my part, no customer of any of my brother opposition druggists here in Woodstock is more pleased to see them obtain full prices for their goods than I am. The only way for this condition of affairs to exist is for the druggists in the various villages, towns, and cities to become better acquainted with each other, acquire confidence in each other, arrange all matters of prices between each other, and then each one live up to his agreement. Let district and local associations be held, have them well attended, and, above all, organize all the time and keep everlastingly at it.

Second clause: Also, considering the co-operation of the wholesale druggists and jobbers in matters pertaining to our interests, we agree, all things being equal, to give them the preference over other dealers in the purchase of our sundries.

Wholesalers also complain that this clause is not being adhered to. I would request the retailers to give the wholesale druggists a chance on their sundry orders. If you cannot buy sundries as cheaply from a wholesale druggist as you can elsewhere, you are at perfect liberty to buy where you can do better; but, in the first place, do as you have agreed to do, "give the wholesale druggist the preference." I believe that most, if not all, of the wholesale druggists carry a pretty full assortment of sundries, and, if the retail druggists will encourage them by placing their orders for sundries with them, I am confident that the wholesale druggists will soon carry a large and most complete stock of sundries. Let us do as we have agreed to do, give them the preference in the purchase of our sundries, until we find that we can do better elsewhere. Let us be honest with ourselves and honest with our wholesale friends. It is one of the objects of this Society to endeavor to regulate and confine all sales of drugs and everything pertaining to the drug business to those who are actually engaged in the drug business.

Third clause: We further agree to maintain the prices intended by the manufacturers of patent and proprietary medicines, and to retail drugs, chemicals, and specialties at prices for which they are fairly and usually sold, or, in the case of articles other than patent and proprietary, as agreed upon by the majority of the local or district association.

This clause needs no explanation. It is very clearly and tersely put. In this we agree to maintain the prices intended by the manufacturer, that is, to sell Burdock Blood Bitters at \$1 per bottle, and not at 65 cents per bottle. Prices for

drugs, etc., are to be those for which they are fairly and usually sold, or they may be prices agreed upon by the district or local association. It is the object of this society to issue a universal price book for the entire province, and have prices more uniform than they are now.

Fourth clause: And we also further agree in no case to substitute in the sale of patent or proprietary articles.

All druggists know what substitution means. Manufacturers complained that the retail druggists did so much substituting that they did not get the full value of their advertising, and, therefore, that they were losing money both in loss of sales and advertising. This clause was inserted in the retail agreement, so that we might obtain the sympathies and assistance of the manufacturers, and we hope and trust that all members will not substitute the goods of any firm of manufacturers whose name is on our friendly list.

Let us be organized, let us understand one another, let us act as one man, let us make ourselves felt, let us have confidence in each other and our society, let each druggist do all he can to promote our common interests, and success must eventually crown our efforts.

Very truly yours,

J. T. PEPPER,
Sec. and Treas. O.S.R.D.

Results of Examination at the Ontario College of Pharmacy, May 1896.

PRIZE MEN.

College Gold Medal—R. A. Gausby Guelph.

College Silver Medal—J. W. McDougall, Strathroy.

Chemistry Medal—R. A. Gausby Guelph.

Pharmacy Medal—W. H. Crossland Barrie.

Materia Medica Medal—J. W. McDougall, Strathroy.

Botany Medal—A. C. Lochead, Parkhill.

D'Avignon Medal—D. E. Munro, Toronto.

HONOR LIST—IN ORDER OF MERIT.

Gausby, R. A., Guelph; McDougall J. W., Strathroy; Lalonde, W. J., Ottawa; Coates, F. P., Walkerton; Greenshields W. J., Toronto; Harkness, F. J., Tamworth; Mitchell, J. T., Tilsonburg; Crossland, W. H., Barrie; Master, Walter Berlin; Renwick, W., Ottawa; McKay R. L., Linwood; Reid, George, Bright Hennessey, J. P., Hamilton; Lochead A. C., Parkhill; Day, F. W., Ottawa; Anderson, J. G., Guelph; Burns, W. C., Cornwall; Westbrook, R. A., Oakland; Robson, W. H., Fenelon Falls; Ross, J. F., Toronto; Samuelson, N., Toronto; Bigham, G. F., Toronto; Edmonds, W. Norwich; McCutcheon, W. J., Cornwall; Jacobs, F. A., Toronto; Palm, O. G., Hamilton; Hoy, C. N., Orillia; Nairn

Protonuclein..

Tablets. (100 3 grain Tablets in bottle) per doz. \$9.00
 " (1000 3 grain Tablets in bottle) . each 6.75
 Powder. (1 oz. bottles) per doz. 9.00
 " (8 oz. in bottle) each 5.50

REED & CARNRICK,
 30 Wellington St. East, TORONTO.

Duncan, Flockhart & Co.'s

Blaud Pill Capsules

Are soft and flexible Never become oxidized
 Never become hard Never vary in strength

These Capsules are put up in 1, 2, and 3 pill sizes, with or without Arsenic, and can be supplied in boxes of 25 or 100 (each). They are prepared by a unique and original process, which entirely overcomes the tendency to **hardening** which is so common in the Blaud Pills.

R. L. GIBSON,
 30 Wellington St. East,
TORONTO.



SEASON 1896.

BILLINGS, CLAPP & CO.'S

**IDEAL
 LEMONADE
 and
 ROOT BEER
 TABLETS**

Put up in 10-Cent Bottles

Are the best Tablets we have handled, and have given general satisfaction.

They are to the front again this season.

Price: 85 Cents a dozen or \$10.00 a gross.

For the Soda Water Fountain.

French, Cave & Co.'s Crushed Violet, Red Orange Phosphate, also Tangerette, Lime Phostizz, Mulford's Pure Grape Juice, Murchison's Acid Phosphate.

Fresh Stock of

Pepsin Chips and Fruit Chips, Tolu Sugar Plums, Sweet Wheat, After Dinner and Celery Pepsin Gums; Heide's Licorice Pastilles, Chapireau's Cachets, etc.

Adam's Root Beer Extract

15 and 25 cent bottles.

CANADIAN SPECIALTY CO.

38 Front Street East, Toronto, Ont.

FOR SALE: 1 Kingery Ice Breaker and Shaver combined for counter

Fruit Juices

H. B. & W.

QUART CHAMPAGNE BOTTLES.

RED MESSINA ORANGE.

CHERRY RIPE

IMPERIAL SICILY LEMON.

PINEAPPLE.

RASPBERRY.

STRAWBERRY.

CATAWBA GRAPE.

BANANA.

PEACH.

CALIS YA PHOSPHATE.

CHOCOLATE in 1 lb. and 5 lb. cans.

Bryant's Root Beer

AS OFFERED LAST MONTH

\$9.00 per Gross with Sign.

National Formulary.

Excelsior Egg Preserver.

Vaccine in Sealed Glass Tubes.

Genuine St. Thomas Bay Rum.

Eff. Caffeine and Pot. Brom., 25c., "E. & Co."

Syrup of Figs, 50c., "E. & Co."

Insect Powder in Shakers, 15c.

McLachlan's Boiled Sugars.

CORRESPONDENCE RESPECTFULLY SOLICITED.

Elliot & Co.,
 5 Front St. East, = Toronto.

DRUGGISTS

NOW IS THE TIME TO
STOCK UP WITH

DAVIS' FLY FELTS

The Popular
Fly Poison.... **5c.**

THIS PACKAGE CONTAINS FOUR FELTS.

DAVIS'
FLY POISON FELTS

NEVER FAILS
TO DESTROY
FLIES
AND
INSECTS.



SUPERSEDES
Fly Paper and all other
POISONS,
Being Convenient and
EFFECTIVE

DIRECTIONS.
Place one of the Felts upon a dish or plate; keep wet with water. Use only enough water to soak the Felt. Flies will drink the poisoned water off the Felt and die immediately.
Placez un des Feltes au-dessus d'un plat ou assiette; tenez-les humides avec de l'eau. Utilisez seulement assez d'eau pour tremper le Felt. Les mouches boiront l'eau empoisonnée, sortiront du Felt et mourront immédiatement.

CAUTION—Should the liquid be swallowed by accident at once administer in large doses, Lime Water, Peppermint Tea, or Iron Rust, followed by an emetic and drinks of Milk or Flour and Water.

PRICE 5 CENTS.

MANUFACTURED BY
POWELL & DAVIS CO., CHATHAM, ONT.

The Reliable
Fly Poison.... **5c.**

SPECIAL PRICE:

Three Box Lots, - - - \$6.75
Single Cases, - - - 2.50

• •

ORDER THROUGH WHOLESALE
DRUG AND PATENT MEDICINE
DEALERS.

• •

Manufactured by

Powell & Davis Co.,
Chatham, Ontario

LIVE DRUGGISTS

—BUY AND SELL—

ADAMS' ROOT BEER



OTHER DRUGGISTS

BUY IMITATIONS AND
KEEP THEM



ADAMS' IS ADVERTISED IN 250
CANADIAN NEWSPAPERS

THE PUBLIC ALWAYS ASK FOR
THE ADVERTISED KIND

Stearns Bicycles

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"Surf" Sea Salt

is a new 15c. pkg., put up in 1 doz. 5 lb. pkgs. per case. Price, \$11 per gross (12 cases) \$11. Wholesale houses sell it. Pkg. is a new patent cardboard one, and handsomely printed. Sales of first week in Toronto 120 cases. The salt is clear as glass and of a size that dissolves readily. It never gets damp, and contains no dirt or grit. Analyze 99.98 per cent. pure salt. You can work up a good salt trade if you try. Why not do it?

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PASS LIST—ALPHABETICALLY ARRANGED.

Anderson, A. R., Peterborough; Allan, E. D., Arthur; Bedford, A., Bloomingdale; Bellanger, R. U., Ottawa; Barber, H. J., Alton; Caughell, E. A., Aylmer; Crosher, E. J., Toronto; Carnahan, H., Meaford; Cochrane, W., Renfrew; Colling, E. L., Toronto; Darby, E. F., Harrow; Denike, A. C., Campbellford; Dunham, F., Stratford; Dougherty, J. W., Mitchell; Dickson, R. S., Goderich; Elliott, J. E., Windsor; Edmison, G. W., H., Peterborough; Ewart, C. L., Ottawa; Fowle, A. H., Orillia; Harvey, I. J., Oshawa; Hutton, A. C., Guelph; Hopkins, H. F., Hamilton; Hurlburt, H. E., Thornbury; Horton, G. D., Sarnia; Hillis, C. A., Brockville; Jessop, D. H., Hamilton; Johnston, A. J., St. Mary's; Land, R. A., Hamilton; Lauchland, W. G., Oshawa; Mathieson, J. A., Brockville; Mitchell, E. J., Paisley; Mitchell, J. A., Clarksburg; Montgomery, W. R., Lakefield; MacLennan, A. D., Kemptville; McKenzie, A. P., Watford; McLeod, R., Collingwood; McClung, F. W., Bowmanville; McLachlin, A. F., St. Thomas; McLachlan, J. A., Chesley; Nicoll, J., Norwood; O'Reilly, T., Hastings; Patton, R. J., Paris; Phillips, J. B., Orillia; Quinsey, W. J., Cayuga; Robertson, Homer, Sarnia; Reid, A. T. S., Goderich; Rowley, R., Aurora; Schaaf, H. E., New Hamburg; Stenson, G. T., Peterborough; Smith, J. S., Ailsa Craig; Sills, F. W., Belleville; Taylor, J. F., Hamilton; Walker, J., Toronto; Winter, H. U., Preston; Weeks, A., Uxbridge.

Passed now and on previous occasions:

Carter, H. R., Picton; Johnston, J. A., Toronto; Laird, E. M., Sarnia; Mitchell, Alex., Hamilton; Robertson, H. G., Hamilton; Roy, H. N., Toronto.

Passed in four subjects:

Begg, G. A., Kingston, Dispensing, Pharmacy, Materia Medica, Botany.

Gordon, J. B., Pembroke, Dispensing, Prescriptions, Pharmacy, Botany.

Lawrence, J. W., Sheridan, Dispensing, Prescriptions, Materia Medica, Botany.

Morrow, A. A., Wingham, Dispensing, Prescriptions, Materia Medica, Botany.

Plaant, J. M., Renfrew, Dispensing, Prescriptions, Pharmacy, Botany.

Sissons, J. M., Orillia, Dispensing, Prescriptions, Pharmacy, Botany.

Tobin, B. W. T., Digby, Dispensing, Prescriptions, Chemistry, Materia Medica.

Wilson, J. P., Paisley, Prescriptions, Pharmacy, Materia Medica, Botany.

Passed in Pharmacy:

McNalley, R., Elmwood.

University of Toronto Annual Examinations, 1896.

The following are the questions submitted at the final examination held in May for the degree of Phar. B.

PRESCRIPTIONS.

Examiner: FRANKLIN T. HARRISON, PHAR. D.

1. Criticize the following combinations. Point out all cases of incompatibility, and say if the mixtures can be satisfactorily dispensed and how?

(a) R Quin Sulph. 20 grs.
Feri Pyrophos. 1 dr.
Acid Phosph. dil. 1 dr.
Liq. Arsenicalis. 1 dr.
Aquam. ad f. 4 oz. M.

(b) R Bismuth Subnit.
Sodi Bicarb. aa 1 dr.
Syr Zinzib. f. 1 oz.
Aquam. f. 3 oz. M.

(c) R Liq. Am. Acet. f. 2 oz.
Tr. Ferri Perchlor. f. 4 dr.
Mucilag. Acacie. 2 oz.
Sodi Salicylat. 2 dr.
Aquam. ad f. 6 oz. M.

(d) Boracis.
Sodi. Bicarb. aa 2 dr.
Glycerini. f. 1 oz.
Acidi Carbolic. fl. 1 dr.
Aquam. ad f. 4 oz. M.

(e) Syr. Ferri Iodid. f. 1 oz.
Sp. Aeth. Nit. f. 1 dr.
Pot. Chlor. 2 dr.
Aquam. ad f. 4 oz.

2. Translate the following prescriptions. State how you would dispense them, giving reasons:

(a) R Chloroformi. f. 1 dr.
Syr. Scilla.
Tolu. aa. f. 1/2 oz.
Ol. Olive. f. 4 dr.
Pulv. Acacie. q. s.
Aquam. ad. fl. 4 oz.

M. Cap. cochl. magn. in quarta quaque hora, si tussis increb.

(b) R Iodii.
Pot. Iodid. aa. 20 grs.
Aquam. f. 1 dr.
Glycerini. f. 1 oz.
F. S. A.

Sig—Sape utend. ut dicto.

3. What do you understand by incompatibility in prescriptions? Classify and give examples of each kind.

4. How much of each of the following salts can be dissolved in an 8 oz. mixture consisting principally of water? Carbonate of Ammonium, Chlorate of Potassium, Sulphate of Magnesium, Phosphate of Calcium, Rochelle Salts, Cr. Tartar.

5. (a) Give average dose for an adult of the following: Chloral Hydrate, Tr. Nux. Vom., Carbolic Acid, Iodine, Borax.

(b) Given the dose of a drug for an adult, how would you calculate the dose for a child four years old.

6. Write a prescription in Latin for a 4 oz. mixture containing maximum dose of Strychnine and Arsenic. Also, 2 oz. Simple Syrup, 20 grs. Sulphate of Quinine, and water as much as required. A teaspoonful to be taken before each meal and on going to bed.

B. P. preparations are to be used and chosen with due regard to compatibility.

Also a prescription for 12 Cathartic Pills and direct one to be taken when required.

7. Translate into English the following:

- (a) Si feb. adest.
- (b) Pro ratione ætatis.
- (c) Si malum urgeat.
- (d) Donec dolor exulaverit.
- (e) Hujus tantillo illinantur palpebrae omni vespere. Ope plumae molles.
- (f) Sumat æger poculum omni bi-horis.
- (g) Capiat quarta quaque die.

PRACTICAL DISPENSING.

Examiner: FRANKLIN T. HARRISON, PHAR. D.

NOTE.—The following prescriptions are to be dispensed with neatness, accuracy, and despatch, labelled and wrapped as if designed for patients. The order and cleanliness in which the desk, with its stock of utensils, is left will be rated.

1. MR. JANES.

R Ext. Bellad. 1 gr.
Ol. Theobrom. q. s. ut fiat soppos. Mitte tales quatuor.

Sig: Statim utend. et repet. si op sit.

2. THOS. ROLAND, ESQ.

R Camphorae. 6 grs.
Plumbi Acet. 18 grs.
Pulv. Opii. 6 grs.
M. ft. mass; div. in pil. vii.

Sig: Cap. pil. ter quaterve die.

3. MR. R. E. SANGSTER.

R Hydrarg. Ammon. 20 grs.
Vaseline. 1/2 oz.
M. ft. ung.

Sig: Appl. more dictu, bis die.

4. MRS. CHILDS.

R. Emp. Plumbi. 3 in. dia.
(round.)

Sig: Admov lateri sinist.

PRACTICAL PHARMACY.

Examiner: FRANKLIN T. HARRISON, PHAR. D.

1. Prepare 3 oz. of a solution of Acetate of Ammonium by the following formula:

Acetic Acid 500°.

Carbonate of Ammonium—a sufficiency

Distilled Water —a sufficiency.

Crush the Carbonate of Ammonium and add it gradually to the Acetic Acid until a neutral solution results, then add sufficient distilled water to yield 600° of product.

A little of the solution heated in a test tube, to expel Carbonic Acid, should be neutral to test papers.

(a) State the amount of each substance used.

(b) Give reason for using Carbonate of Ammonium rather than solution of Ammonia.

(c) How should the solution be stored.
2. Purify and exhibit in granular form the sample of impure Chloride of Ammonium submitted.

PROCESS.

Dissolve 4 drachms of the Chloride of Ammonium in about 6 drachms of water with the aid of heat, add about $\frac{1}{4}$ drachm of Solution of Ammonia, continue the heat for a few minutes, filter, and evaporate to dryness on Water Bath with constant stirring.

(a) State the weight of your purified sample.

(b) Give reason for each step of process.

PHARMACY AND PHARMACEUTICAL CHEMISTRY.

Examiner—FRANKLIN F. HARRISON, PHAR.D.

1. A drug contains: Albuminoids, Chlorophyll, Fixed Oil, Volatile Oil, Cellulose, Sugar, and Starch. It is extracted with the following menstrua successively: (1) Pure Ether; (2) Alcohol, 90 per cent.; (3) Cold Water; (4) Hot Water. Where would you expect to find the various constituents?

2. Dialysis: Give brief description of the process, and state its practical application to Pharmacy.

3. Give practical notes on the preparation of the Scale Salts, and more particularly of Citrate of Iron and Quinine.

4. Describe the preparation of Pyroxilin, and say why Sulphuric Acid is used. For what is it used in Pharmacy?

5. State proportion of active ingredient, and method of estimating same, in Mercurial Ointment, Diluted Hydrocyanic Acid, Strong Solution of Perchloride of Iron, Strong Solution of Ammonia and Solution of Chlorine.

6. Give alkaloidal strength of the following: Soluline of Hydrochlorate of Strychnine, Tincture of Nux Vomica, Liquid Extract of Cinchona, Solution of Acetate of Morphine and Citrate of Iron and Quinine.

7. Acidum Tartaricum: Give its preparation, characters, tests, and pharmaceutical uses.

8. Acidum Nitro-hydrochloricum Dilutum:

(a) How is it prepared?

(b) What compounds are present in the finished product?

CHEMISTRY—ORGANIC AND INORGANIC.

Examiner—GRAHAM CHAMBERS, B.A., M.B.

1. Explain the meaning of the following terms: (a) Dissociation, (b) Oxidation, (c) Alum, (d) Atomic weight, (e) Amine, (f) Carbohydrate, (g) Glucoside.

2. Describe the properties of Hydrogen Peroxide. What is meant by a ten-volume solution? Write an equation illustrating the action of Hydrogen Peroxide on a solution of Potassium Permanganate acidified with Sulphuric Acid.

3. Give an account of the manufacture of two of the following substances—give equations: Orthophosphoric Acid, Calomel, Sulphuric Acid, Sodium Carbonate.

4. Write equations illustrating the action of

(a) Potassium Hydrate on Chloral.

(b) Nitric acid and Sulphuric acid on Glycerine.

(c) Hydrogen Sulphide on Ferric Chloride.

(d) Strong Nitric acid on Tin.

(e) Heat on Ammonium Bichromate.

5. Give an account of the chemistry of Zinc. How would you distinguish Zinc Sulphate from Aluminium Sulphate?

6. Describe the manufacture of Ethyl Alcohol from cane sugar. How is the strength of an alcoholic solution determined?

7. Write the constitutional formulæ of Ethyl Alcohol, Glycerine, Phenol, Salicylic Acid, Ethyl Chloride, Chloroform.

8. Give an account of the group of organic compounds known as Aldehydes.

ANALYTICAL CHEMISTRY.

Examiner—GRAHAM CHAMBERS, B.A., M.B.

1. Detect the acid and base in substance marked "A."

2. Detect the acid and base in substance marked "B."

3. Detect the acid in substance marked "C."

4. Detect the base in substance marked "D."

5. Does the solution marked "E" contain strychnine, or morphine?

6. Write equations illustrating the chemical changes which occur in treating substance marked "D."

7. Oral examination.

MATERIA MEDICA.

Examiner—L. B. ASHTON, PHM.B.

1. Name five drugs from the animal kingdom, one of each class, giving order and use of each.

2. (a) Volatile Oil of Mustard.

Give its botanical source: by what factors is it produced?

(b) Oleum Theobromæ.

Give its botanical source and melting point.

(3) Write full materia medica notes on Digitalis.

4. (a) Pilocarpine, (b) Eserine.

Describe briefly the marked appearance of the source of each. Submit sketch. What is the action of each?

5. State to which group of proximate principles each of the following belongs; also giving part used, botanical source, natural order and habitat of the plants which yield these active constituents (write answer in tabular form).

Hydrastine, Santonin, Menthol, Aconitine, Strophanthin, Arbutin, Salicinum, Homatropine, Rottlerin, Convolvulin.

6. Guarana: Give source and habitat. How is it prepared for the market? What are its important constituents.

7. Give doses of: Pulv. Elaterini Co. Codeine, Creasote, P. Scillae, Ac. Benzoic, Liq. Donovanii, Tr. Capsici, Ext. Belladoni, Alc. Caffeine Citrate, Tr. Strophanthi.

8. Oleum Jecoris Aselli: write short therapeutic notes on its digestion, men-

tioning the functions by which it reaches the blood stream in its absorption. What is its chief value as a remedial agent?

PHARMACOGNOSY AND MICROSCOPY.

Examiner—L. B. ASHTON, PHM.B.

1. Name the gross specimens submitted.

2. Name and draw diagram of any one of the microscopic slides.

3. Oral.

BOTANY.

Examiner—A. Y. SCOTT, B.A., M.D.C.M.

1. Define the terms: (a) phyllotaxy, (b) stomata, (c) druse, (d) corm, (e) glume.

2. Describe the ovule of a gymnosperm and how does it differ from that of an angiosperm.

3. Draw and describe a transverse section of the rhizome of a fern.

4. Describe the process of pollination and fertilization and the means taken by nature to aid cross fertilization.

5. Explain the process of assimilation in the vegetable kingdom.

6. Describe the reproduction of Puccinia Graminis. What is alternation of generations?

7. Algae and Fungi are said to be morphologically the same, physiologically different. Explain fully.

PRACTICAL BOTANY.

Examiner—A. Y. SCOTT, B.A., M.D.C.M.

1. Specimen A. Describe the inflorescence.

2. Specimens B, C, D. Describe and classify.

3. Specimen E. Draw and describe a transverse section.

4. Specimen F. Describe and classify, giving reasons for so doing.

Bachelor of Pharmacy.

The following graduates of the Ontario College of Pharmacy secured the degree of Phm. B. at the recent examination held at the University of Toronto:

J. G. Anderson, T. H. Atkinson, A. Bedford, J. H. Bennett, G. F. Bigham, W. B. Burns, J. R. Byers, H. Carnahan, E. P. Coates, A. E. Cox, W. H. Crossland, E. F. Darby, A. C. Denike, F. M. Denham, G. W. H. Edmison, W. E. Edmonds, J. E. Elliott, C. L. Ewart, A. H. Fowlie, R. A. Gausby, H. A. Gourlay, W. J. Greenshields, L. J. Harvey, J. P. Hennessey, H. S. Hopkin, G. D. Horton, C. N. Hoy, Hurlburt, A. C. Hutton, F. A. Jacobs, J. A. Jamieson, A. J. Johnston, C. C. Laing, W. J. Lalonde, R. A. Land, W. G. Lauchland, F. W. McClung, R. R. McKay, A. P. McKenzie, R. McLeod, W. Master, J. A. Mathieson, J. T. Mitchell, D. E. Munro, D. Nairn, J. Nicoll, O. G. Palm, H. S. Panell, W. M. Parish, R. J. Patton, A. T. S. Reid, G. D. Reid, H. R. Robertson, W. H. Robson, J. R. Ross, W. Samuelson, H. E. Schaaf, F. W. Sills, J. S. Smith, H. F. Spencer, G. T. Stenson, J. F. Taylor, J. Walker, Wesbrook, H. N. Winter.



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The following may be of use to you: "A customer of mine, who keeps a butcher shop in this town, bought a 10 cent package of your Fly Pads from me and in ten days killed over a BUSHEL MEASURE OF FLIES." Yours truly,
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300 SHEETS OF STICKY PAPER
TO HOLD THIS BUSHEL OF FLIES

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FLY PADS
SOLD BY ALL DRUGGISTS

Sell . . . **WILSON'S FLY PADS**

They are far more destructive than any other Fly Poison, and will always give your customers satisfaction.

Beware of imitations got up to sell on the reputation of Wilson's Fly Pads.

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Has taken the trade by storm. Already we have sold far more than during the whole of last season, and the demand is increasing fast. Without doubt Wilson's is the best Root Beer. Each 10-cent bottle makes five gallons.

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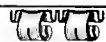
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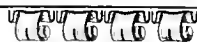
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1 " Indian Maize.	10c... 1 20
1 " Glycerine Healing Tar.	10c... 1 20
1 " Hard Water Cocoa Castile.	5c... 60
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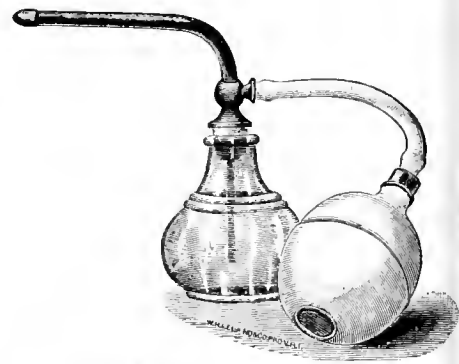
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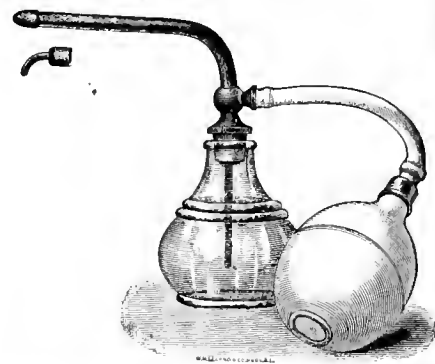
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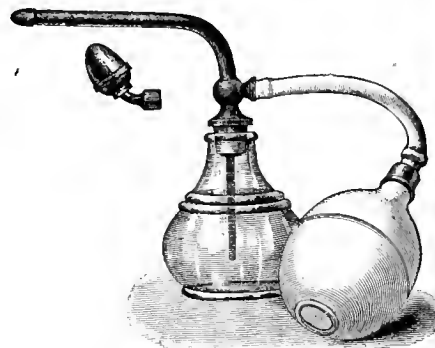
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Carnot's Liquid Dentrifice

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Baker's Chocolate

Hance Bros. & White's Fruit Juice

Trade Notes.

Frank Heyd has purchased the drug business of Dr. Welford, of Woodstock, Ont.

Samuel Hanson, formerly of Victoria, B.C., has opened a drug store at Kaslo, B.C.

E. G. Lemaitre has purchased the drug store of Josiah Green, Queen street west, Toronto.

James E. Davis, of Goderich, has opened a branch drug store at Dunganon, Ont.

W. A. Griffiths & Co., Vancouver, B.C., have removed their drug store to 140-142 Cordova street.

A drug store has been opened in the building formerly occupied as a general store by Bartlett & Robinson, Mount Bridges, Ont.

Alex. B. Sutherland has been granted letters of administration for the estate of the late Owen F. Botsford, druggist, of Queen street, Toronto.

The Toronto Pharmacal Co. are now in possession of their warehouses at 136 Bay street, Toronto, and are in a position to cater to the wants of the retail drug trade.

Thomas B. Taylor, druggist, Watford, Ont., has removed to his new store in Dodd's block, which he has had handsomely fitted up and capitally arranged for the display and storing of the varied lines which he carries.

After an absence of two years, Mr. W. J. Corbett, representing C. W. White & Co., Boston, Mass., manufacturers of trusses, etc., is again making a trip through Canada. Mr. C. R. Corbett, a brother of the above, is calling on the trade in the eastern provinces for the same house.

Edward Giroux and F. X. Langelier (The National Pharmacy Co.), 216 St. Lawrence street, Montreal, have assigned liabilities about \$4,500. Amongst the principal creditors are Seabury & Johnston, New York, \$502; N. F. & G. Guertin, \$500; Lyman, Sons & Co., \$677; Lyman, Knox & Co., \$705.

The Nyassau Medicine Co., Ltd., of Truro, N.S., have completed their organization, and will shortly commence manufacturing. Capital stock, \$40,000. The directors are James E. Bigelow, president; J. D. McKay, vice-president; Daniel Gunn, secretary-treasurer; J. G. Aikman, C. D. Muir, W. H. Adams, and J. A. Dickson, all of Truro.

In consequence of the death of Mr. A. J. Langley, the wholesale drug firm of Langley & Co., Victoria, B.C., has been changed to Langley & Henderson Bros., and is now composed of Messrs. J. N. Henderson, T. M. Henderson, and Wm. Henderson. The Vancouver branch of the business will be under the management of Mr. J. A. Henderson.

Mr. Hugh Miller celebrated his seventy-eighth birthday on June 2nd, having been born at Inverness, Scotland, June 2nd, 1818. Mr. Miller commenced his drug business in the stand which he now occupies, 167 King street east, Toronto, in 1842, and is consequently one of the oldest druggists in the city. He is also a Justice of the Peace and assistant Police Magistrate of Toronto.

Prince Edward Island Notes.

Mr. L. W. Watson has been seriously ill, but is now able to attend to business again.

Dr. Dodd has added largely to the appearance of his store by interior decoration.

The number of druggists in Charlottetown selling fishing gear has been increased by two this season, and still trade in this item seems brisk. It looks as though everyone in Charlottetown must have a fishing outfit and a bicycle.

Business in the drug line is reported very dull from Prince Edward Island.

British Columbia Notes.

Mr. Charles Nelson has decided to retire from the position of secretary-treasurer-registrar of the British Columbia Pharmaceutical Association, it taking up too much of his time. His resignation will be handed in to the council when they meet on June 11th.

The semiannual examinations take place in Vancouver on June 3rd and 4th. There are three applicants for preliminary, four for minor, and one for major.

The annual meeting of the association takes place in New Westminster on June 11th, when the new officers will be re-elected, etc. After the meeting the annual banquet will be held.

Departure of Mr. Laurance.

Our readers, and especially those who are interested in optical work, will regret to learn that Mr. Lionel Laurance, principal of the Optical Institute of Canada, has resigned his position, and is removing from Toronto. Those students who have studied under him, and all who know him personally, bear testimony to his thorough knowledge of the science of optics, and the faculty of imparting instruction, as well as his great interest in all those who have graduated from his institute. We understand it is the intention of Mr. Laurance to take up his residence in Europe for some time. We are pleased, however, to inform our readers that the excellent articles on optics contributed by him to THE CANADIAN DRUGGIST will still be continued, and that these papers, which have been so highly spoken of and appreciated by opticians, as evidenced by the numerous letters we have received, will still be a leading feature in our columns.

Montreal College of Pharmacy.

At the first meeting of the new board, Mr. A. J. Laurence was elected vice-president, and Mr. H. W. Reynolds was added to the council. Mr. Alexander Manson having sent in his resignation to the board as treasurer, Mr. E. Muir was made a member of the board and secretary-treasurer. The following is the

ANNUAL REPORT.

Your board desire, upon retiring from office, to lay before the members of the college a synopsis of the work done during the past year.

The meetings of the board have been regularly held and fairly well attended, and at their meetings matters of interest to the college have been duly considered, and decided, in the judgment of the board, for the best interests of the college in general. During the months of July and August, as usual, no sittings of the board were held.

At the last annual meeting it was moved by Mr. Contant, seconded by Mr. Morrison, that the invitation of the previous year, given to the American Pharmaceutical Association, to hold their annual meeting of 1895 in the city of Montreal, be extended to them for their annual meeting of 1896, and that the same committee then appointed be requested to act. In accordance with this resolution, your board felt it their duty to renew the invitation to the American Pharmaceutical Association to hold their annual meeting of 1896 in this city. This invitation has been gracefully accepted, and they will assemble here on the 12th of August next, and your board trust that the members of the college will do all in their power to make the coming of such a distinguished and honorable body so much of a success that our American friends will leave us highly pleased with the hospitality shown them during their stay here. A vacancy having occurred in the faculty of the college by the resignation of Dr. DesRosiers, Mr. H. R. Lanctot was elected to fill the chair of Professor of Materia Medica for the French class, but, owing to failing health, Mr. Lanctot was reluctantly obliged to send in his resignation to the board, when Mr. J. E. W. Lecours was appointed to take his place, Mr. Lecours completing the course of lectures which had been begun by Mr. Lanctot.

Your board, in fulfilment of a promise given by the president during the previous session, appointed Mr. Joseph E. Morrison to give a course of lectures on Botany in French, this class being fairly well attended. At a meeting of the board held in January last, the question of changing the curriculum was fully discussed, the board deciding that the classes be divided into junior and senior classes in Materia Medica and Chemistry, said classes to alternate each year. They also made a thorough reorganization of the curriculum of study, adapting it to

the wants of the various new classes. This curriculum has been published, and, although not as perfect as it might have been, has been approved of by the professors and highly appreciated by the students. In making this change your board feared that it would be prejudicial to the financial interests of the college. This, to some extent, has been the case, as the receipts from entrance and lecture fees of the past year show a deficiency of \$345 as compared with the receipts of the previous year.

Your board, in order in a measure to increase the membership of the college, decided to change the by-law on membership, as then existing, under which none but licentiates of pharmacy could become members, passed the following resolution, namely: "That in future a new section be added to By-law No. 2, and read as follows: 'Persons eligible to become members of the college, other than licentiates of pharmacy in active business, shall be licentiates of pharmacy not in active membership in the Pharmaceutical Association of the Province of Quebec; graduates of the Montreal College of Pharmacy who have taken the full course of the college, and who have passed the required examinations; benefactors, either as individuals or as members of firms, to the extent of fifty dollars in cash or donations of the same value. Benefactors, to be eligible, must be connected with pharmacy or its allied sciences.'"

Your board regret to report that the two students, R. G. Rioux and J. A. Gauvin, who were suspended from the college during the session of 1894 and 1895 for insubordination, had seen fit to press their suits against the college. Your board had hoped that, after mature consideration, they would have withdrawn their actions; but this they did not do, and the two cases were argued before Judge Ouimet last December, and, after a three days' hearing, was by him taken *en delibere*, but up to the present time he has not delivered judgment. Why this delay your board are at a loss to account for; however, the attorneys for the college are quite sanguine that the judgment, when rendered, will be in favor of the college.

Your board have to report that the usual sessional examinations were held in December and March last, resulting in the following students passing, namely: Botany—Jas. A. Gillespie, A. Lebeau, W. F. Roach, J. A. H. Charbonneau, C. M. DuGay, T. E. Gagner. Senior Materia Medica—W. A. Smallwood, R. J. Lunny, W. F. Roach, D. R. O'Neill, Jas. Franckum. Junior Chemistry—W. A. Smallwood, R. H. D. Benn, G. H. Voss, F. J. Lemaistre. The prize students are as follows: Botany—Jas. A. Gillespie. Junior Materia Medica—Henri St. Georges. Senior Materia Medica—R. J. Lunny, W. F. Roach. Junior Chemistry—R. H. D. Benn and Geo. H. Voss, equal.

Your board have to report that the gold medal donated by Mr. A. E. Holden

has been awarded to Mr. Jas. A. Gillespie, and the minor prize, donated by Mr. A. J. Laurence, was awarded to Mr. R. J. Lunny.

In connection with these prizes your board are pleased to announce that Mr. J. R. Parkin has kindly offered the gold medal for competition at the spring examinations of 1897, and it is hoped that some member present will contribute the minor prize, so that these prizes may be inserted in the next annual announcement.

Your board have to report eighty-six students having entered for the lectures of the past session. The professors report the attendance and conduct of the students to have been very satisfactory.

Your board beg to report that the mortgage of \$2,000 held by the Sun Life Insurance Company against the college property matured on May 1st, and that for good and valid reasons your board decided to change this mortgage, which is now paid off, and a new mortgage for \$2,000 given to L'Alliance National for five years, at 5½ per cent. interest.

The treasurer's statement will be laid before you, showing a balance in the hands of the treasurer on April 30th, 1896, of \$846.78, after paying all expenses, and the sum of \$100 cost on account of the lawsuits against the college, all of which is respectfully submitted.

MONTREAL COLLEGE OF PHARMACY IN ACCOUNT WITH
ALEXANDER MANSON, TREASURER.

1895.	To Balance in Bank...	\$ 962 05
May 1.	Cash from the Secretary at various times...	1747 00
	Interest	33 38
	Donation from Pharmaceutical Association.	100 00
		<u>\$2,742 33</u>
1895.	May 14. By Cash paid Montreal Gas Company	8 43
	17. Water account	6 61
	23. Cash paid College Building Fund.....	40 00
	June 17. Cash paid E. M. Renierf	20 00
	17. W. Foster Brown..	5 53
	18. La Presse	4 00
	18. Star	4 50
	24. Auer Light Co	6 00
	Aug. 14. Gas Co	11 00
	Oct. 11. D. Bentley & Co	44 95
	Nov. 8. Thos. Liggett & Co	7 78
	16. Geo. W. Cameron	75 54
	Dec. 19. A. D. Downes	10 00
	20. Bisailon Brosseau & Lajoie	100 00
	23. J. H. Jones & Co	13 30
1896.	March 6. Waterworks acct.	6 68
	Apr. 21. Lyman Sons & Co	18 70
	21. Kerry Watson & Co	11 77
	30. Professors' lecture fees	1200 00
	30. E. Muir, secretary, salary	400 00
	30. Balance in Treasurer's hands and bank	846 98
		<u>\$2,842 43</u>

Pharmaceutical Association, District
No. 7.

The regular annual meeting of District No. 7 of the Pharmaceutical Association was held at Georgetown, May 21st, 1896, with President T. P. Smith, of Flora, in the chair.

After the secretary, Mr. Stewart, of Guelph, had read the minutes of the last meeting and they were confirmed, a

nominating committee consisting of Messrs. Wood, Kannawin, McCollom, Ruston and Phillips, was appointed, who, after meeting, recommended the following committees, which on motion was adopted.

Committee on Chemistry, Pharmacy and Legislation—Stewart, Perry, Yeomans, Norris, Wood.

Committee on Trade and Commerce—Smith, Turner, Phillips, Petrie, Morrow.

Committee on Grievances—Perry, Colcleugh, McCollom, Stevenson, Smith.

Committee on Entertainment—Dodds, Maddock, Kannawin, Law, Jamieson.

After the committees were appointed the election of officers was proceeded with, resulting as follows: President, T. P. Smith, re-elected; first vice-president, T. Ruston; second vice president, A. Jamieson; third vice-president, R. Woods; treasurer, R. Phillips; secretary, A. Higginbotham; auditors, Stevenson and Wood.

After the election of officers, the auditor reported everything satisfactory, with a balance of \$62.51. The report was adopted.

Moved by R. Phillips, seconded by R. Wood, that we meet in Guelph on the second Monday in May 1897.

A vote of thanks was tendered the retiring secretary, Mr. Stewart, who in accepting same thanked the members for their kind words, stating that any little help that he could give was given cheerfully, as he believed in and heartily sympathized with the aims of the association.

It was decided that the association should be represented at the next annual meeting of the Ontario Association, and on motion Messrs. Smith and Stewart were deputed to attend same, this association defraying their expenses. President Smith, having been in communication with Secretary Pepper of the Ontario Society of Retail Druggists, gave the meeting the benefit therefrom in a very thorough manner, covering the aims and work of that association, after which the following resolution was passed:

That this association expresses itself as in full accord with the objects of the Ontario Society of Retail Druggists, and that we recognize the necessity and importance of all retail druggists uniting to overcome the cutting system and in seeking to further the best interest of the trade, and that this association pledge itself to co-operate with and support in every way possible the Ontario Society of Retail Druggists in attaining the objects it seeks.

The meeting then adjourned.

A. HIGGINBOTHAM,
Secretary District No. 7

Milton.

Cacao butter is recommended as the best excipient for making pills of creosotal.

To preserve chloroform dissolve on part of sulphur in one thousand parts of chloroform.

Wampole's**BEEF, WINE, AND IRON.**

In Pint Bottles... \$5 00 per doz.

Winchester (½ Imp. Gal.) 2 00 each.

Imp. Gallon, in 5 gal. lots, and over 3 50 per gal.

With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

¼ Gross lots, and over... \$60 00 per gross.
(Packed in One-Dozen Cases.)

We use a Pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

We invite comparison with other manufacturers, and will cheerfully furnish samples for that purpose.

Your early orders and enquiries solicited through Wholesale Jobbers or direct from us.

Henry K. Wampole & Co.,**MANUFACTURING PHARMACISTS,
Philadelphia, Pa.***Canadian Branch:*

36 and 38 Lombard Street, TORONTO.

NICHOLSON & BROCK,

21 COLBORNE STREET, TORONTO.

BIRD SEED.

**LITTLE'S
PATENT FLUID
NON-POISONOUS
SHEEP DIP
AND CATTLE WASH.**

For the Destruction of Ticks, Lice, Mange, and
all Insects upon Sheep, Horses, Cattle,
Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin,
making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

It has won 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at \$1.00. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.

**CHEAP, HARMLESS, AND EFFECTIVE**A Highly Concentrated Fluid for Checking and Preventing
Contagion from Infectious Diseases.**NON-POISONOUS AND NON-CORROSIVE.**

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and \$1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton and London, Ont., and Winnipeg, Man.

ELLIOT'S "B" PARCHMENT PAPER

is one of the articles to be considered in the practice of "elegant pharmacy," as it furnishes the finest transparent wrappers for bottles, packages, etc. It must be seen and tried to be appreciated. We send samples.

ELLIOT'S PARCHMENT POWDER PAPERS

are the best for hygroscopic powders and all other powders. The following prices show they are the cheapest:— Put up in Neat Boxes of 500 Sheets.

No.	Rm.	No.	Rm.
22 For Magnesia and general use,		31 Large Seidlitz, Blue,	n x 6, \$0.50
White, 6 x 8	\$0.65	40 Powder Papers, White,	2 1/2 x 4, 25
28 Regular Seidlitz, White,	4 1/2 x 5 1/2, 40	41 Powder " "	3 x 4 1/2, 20
29 Regular " Blue,	4 1/2 x 5 1/2, 40	42 Powder " "	2 1/2 x 3 1/2, 25
30 Large " White, n x 6, 50		43 Powder " "	3 1/2 x 4 1/2, 25

SEND FOR SAMPLES. Elliot's Parchments are for sale by the leading jobbers. We also make heavy Parchment for Sticky Fly Paper, and Druggists Pure Tin Foil.

A. G. ELLIOT & CO.,

PHILADELPHIA.

If you want to sell the best, handle

MAJOR'S CEMENT

CHEAP, QUICK, AND CERTAIN.

Repairs China, Glassware, Meerschaum, Bric-a-Brac, to put on cloth, corn and bunion plasters; to hold a bandage on a wound or sore finger. 15c., 25c.

Major's Rubber Cement, 2-oz. bottle, or in collapsible tubes, for repairing rubber boots and shoes, bicycle tires, rubber garments, silk umbrellas, etc. 15c.

Major's Leather Cement repairs boots and shoes, garments and umbrellas of all kinds of material except rubber, applied same as on leather goods. 15c.

Major's Liquid Glue repairs furniture, books. 10c.

KERRY, WATSON & CO.,
351 St. Paul Street,

Sole agents for the Dominion. MONTREAL, Canada

BRUSHES

Hair and Cloth

Tooth and Nail

TEN CASES NEW GOODS JUST IN
WRITE US FOR SAMPLES AND PRICES

MEAKINS & COMPANY

Brush Manufacturers

313 St. Paul Street, - Montreal.

Sovereign . . Lime Fruit Juice

Is the Strongest, Purest, and of Finest Flavor

We are the largest refiners of LIME JUICE
in America, and solicit enquiries.

For Sale in Barrels, Demijohns, and twenty-four ounce Bottles
by wholesale in

TORONTO, HAMILTON, KINGSTON, AND WINNIPEG

SIMSON BROS. & CO., Wholesale Druggists

HALIFAX, N.S.



Sick Men Smile



after trying the one
great sure-to-help,
pleasant, and sus-
taining strengthener.

Wilson's Invalids' Port

The big bracing tonic.

Physicians swear by it—Sick men
recover by it.

For Sale Everywhere.

75C. PER QUART BOTTLE

AGENTS FOR CANADA:

BORDEAUX CLARET CO.
30 Hospital Street, Montreal.

Genuine Antikamnia Preparations

ANTIKAMNIA POWDERED.

ANTIKAMNIA TABLETS,

(1 gr., 2 gr., 3 gr., 5 gr. or 10 gr. each.)

ANTIKAMNIA and CODEINE TABLETS.

(4 gr. Antikamnia, 1 gr. Sulph. Codeine.)

ANTIKAMNIA and QUININE TABLETS,

(2 1/2 gr. Antikamnia, 2 1/2 gr. Sulph. Quinine.)

ANTIKAMNIA and SALOL TABLETS,

(2 1/2 gr. Antikamnia, 2 1/2 gr. Salol.)

ANTIKAMNIA, QUININE and SALOL TABLETS,

(2 gr. Antikamnia, 2 gr. Sulph. Quinine, 1 gr. Salol.)



Without above Monograms None are Genuine.

These preparations are made solely by us and are put up
in 1-oz. packages only.

NEVER IN BULK.

Trade supplied by all jobbing houses in the United States, Canada,
Mexico, South and Central America.

British & Colonial Depot, 46 Holborn Viaduct, London, E. C., Eng.

The Antikamnia Chemical Company,

Price List on Application.

ST. LOUIS, MO., U. S. A.

Is it Necessary that the Pharmacist Should be a Chemist?

Is it necessary that a pharmacist should have hands?

The average druggist conducts his business without any knowledge of chemistry, and yet very few accidents directly traced to his lack of chemical knowledge seem to be reported. Neither the proprietor nor any one of his employees may have the slightest acquaintance with chemistry; but as no protest is offered by those whom they serve, they might well conclude that the drug business can be conveniently and profitably carried on without any reference to the chemical properties of matter. A man who is entirely innocent of all chemical knowledge naturally fails to appreciate its importance, especially if his own experience has been such as to confirm in him the comfortable belief that he can get along without it. Thousands of men follow the advice of wholly incompetent physicians and take the medicines dispensed by men who know nothing about pharmacy, and other thousands use dangerous quack medicines, with apparent impunity. Thousands of soldiers fight battle after battle without being wounded.

But the intelligent and safe practice of pharmacy is nevertheless impossible without a good knowledge of the laws of chemistry. Such a knowledge of chemistry as is necessary to the pharmacist of to-day and to-morrow can never be gained by mere reading, by attendance upon lectures, or by such instruction and practice as may be obtained in the drug store. Laboratory courses extending over many months, embracing many hundreds of hours of actual practice in well equipped laboratories, under experienced teachers, and covering analytical as well as synthetic work, quantitative as well as qualitative examinations, are necessary.

The knowledge and training thus acquired are necessary in the identification of medicinal substances, in the examination of their quality, purity, and strength, in the valuation of crude drugs as well as finished preparations, in the making of pharmaceutical products, in the proper preservation of medicines, and in combining one medicine with another. In other words, there is very little pharmaceutical work that can be intelligently performed without a practical knowledge of chemistry. Even in the work of cleaning mortars and other apparatus and implements, a knowledge of the action of acids, alkalis, etc., upon different substances, is of the most direct and practical value.

The apprentice ought to know, before the beginning of his drug store employment, the nature and properties of acids, alkalis, salts, and other compounds, and their relations to each other. He should also know a good deal about the water-solubilities of the various classes of chemical compounds, and have a general knowledge of certain other important properties

of the materials with which the pharmacist is concerned, and which can be effectively studied only from the standpoint of chemistry.

The chemistry not only of *inorganic* but also of *organic* medicinal substances must be familiar to the pharmacist to a considerable extent. The properties of the various classes of chemical constituents of plant drugs must be known to him. He must be able to foretell, as well as understand, the many chemical results which attend upon his work, whether in the laboratory or at the dispensing table. —*Bulletin of Pharmacy.*

Pharmaceutical Reform in Germany.

Germany has hitherto been regarded as one of the countries where the practice of pharmacy was carried on under peculiarly favorable conditions — the system of limiting the number of pharmacies in proportion to population has prevented competition, the dispensing of medicine has been entirely in the hands of qualified pharmacists, and the education of those entering the business has been such as to ensure their occupying a position of social equality with members of the medical profession. But within recent years changes have taken place which have adversely influenced the position of German pharmacists. One result of the system of limitation has been to raise considerably the value of a pharmacist's business, and in some instances this has been done in such a manner as to be regarded by the government authorities as a public scandal. In addition, there has been, under this system, much difficulty in obtaining a business, and as a result the younger members of the body have not been able to take an independent position as soon as they desired.

The regulation of the practice of pharmacy has consequently been for many years past a subject of anxious consideration by the German Government, and probably not less so by all connected with the business.

The substitution in 1811 of concessions in the place of privileges or charters granted by the State as the authority under which a business was carried on did not materially affect the proprietary interest of the individual to whom a business belonged, and in practice a concession has been as much a piece of saleable property as a privilege. But subsequently a third form authorization was introduced — the personal concession — by which individuals obtain from the government permission to carry on business without having also the power of transferring the business, by sale or otherwise, to another individual. So that when the owner of a business carried on under a personal concession retires or dies, the continuance of the business is entirely subject to the control of the government.

At the present time there are in Germany 5,162 pharmaceutical establishments. Of these 1,820 are conducted

under the authority of state privileges, 2,352 under concessions, and 764 under personal concessions, only this last named authority having been granted since 1894. The German Government is now contemplating the establishment of a system throughout the country by which authority to carry on business as a pharmacist or "apotheker" would be granted only by personal concession. By that means it is considered that the sometimes artificially increased prices of pharmacies would be prevented, greater opportunity afforded to the younger qualified men to go into business on their own account, and probably there may also be an expectation that under the new system a reduction in the cost of medicines might be effected.

In regard to this project the owners of pharmacies are naturally opposed to its introduction, and that is also the case with the greater number of those who are still in the position of assistants. One of the chief grounds of objection is that the pharmacist would be to a great extent only a government official—he would not have power to dispose of his interest in a business and to retire with advantage. But, above all, those who are possessors of establishments apprehend considerable depreciation of their value, since the government has so far given no indication that, in abolishing the older systems, any but the holders of privileges would receive compensation. If the concessions were to be abolished without compensation of the present holders, the result would be practically one of confiscation. Even the projects by which it is proposed to provide against the contingency, by a process of redemption, are not altogether satisfactory, because the present owners would have to pay for the provision so made, although their disappropriation would not be so apparent.

Quite recently a commission has been appointed by the German Government to consider the whole subject of regulation of the practice of pharmacy, and it met in the early part of April last. The result of its deliberation does not appear to have been decisive in any direction, but rather to have shown that agreement between the different parties cannot be looked for without the intervention of the government. Under these conditions the introduction of a legislative measure by the State is awaited with great interest. —*Pharmaceutical Journal (Eng.).*

To make a permanent aqueous solution of thymol it has been suggested that the thymol be dissolved in soda solution, each litre dissolving one-half gramme of thymol. The soda solution must, however, be prepared with distilled water.

FOR DANGEROUS NOSE BLEEDING.—A prominent eastern physician recommends a common powder puff fungus. The powder is snuffed up the nostrils and the bleeding will immediately cease as soon as contact is made.

Pharmaceutical Notes.

KOENIG'S ANTISEPTIC SALT, largely sold in Germany as a preservative, consists (*Phar. Centralb.*) of 15 per cent. of acid ammonium fluoride, and 85 per cent. of hydrofluosilicic acid.

A NEW METHOD OF APPLYING LEECHES.—The leech is placed in a large test tube partly filled with water. The open end of the tube is then placed against the part, when the leech promptly fixes itself to the skin.

NEW REMEDIES.—Quinoform is the name given by de Vrij to the precipitate formed by the addition of hydrochloric acid to a mixture of extract of cinchona mixed with formalin. Hemicanin and laxol are two American remedies. The former is a mixture of 5 parts of phenacetin, 1 part of caffeine, and 1 part of citric acid; the latter is a mixture of saccharin and peppermint oil with castor oil. Orphol is the name given to a naphthol-bismuth. Sallhypnone is benzoyl-methyl salicylic ether.—*Brit. and Col. Drug.*

Dr. Lanarelle recommends the following as a nutrient medium for microbes in water: Gelatin, 20 parts; dry peptone, 10 parts; sodium chloride, 10 parts; potassium nitrate, 1 part; distilled (sterilized) water sufficient to make 100 fluid parts. This may be preserved in sterilized tubes: for use add 10 C.c. of this solution to 100 C.c. of the water; this will give a nutrient medium containing gelatin, 2 grammes peptone, 1 gramme (*Mod. Medic.*)

MUSTARD AS A DEODORIZER AND ANTISEPTIC.—Mustard is a very efficient deodorizer for the hands after working with anatomical material; and a well-known surgeon is recorded to have gone directly from a dissection to his operating room after such disinfection. In a case in which the fingers could not be deodorized by the ordinary means after removing the tube from the throat of a patient dead of diphtheria, mustard was efficacious. It may be employed, therefore, in any case when speedy and thorough disinfection of the hands is required; after post-mortems, removal of placental remains from the uterus, the opening of abscesses, the handling of gangrenous parts, etc. Not the least of its advantages is the fact that it is to be found in every household.—*Zeitschrift f. Krankenpflege.*

TO DETECT TURMERIC IN POWDERED DRUGS.—The *Journal de Pharmacie d'Anvers* recommends the following process for the detection of turmeric in powdered rhubarb, mustard, etc.: Add a drop of oil of anise or fennel to a small sample of the suspected powder placed on a glass slip, and examine under the microscope with transmitted light. If the oil is colored yellow it is proof positive of the presence of turmeric.

Preparing Aqueous Thymol Solutions.

Pharmaceutische Centralhalle directs as follows: Inasmuch as thymol is a good antiseptic, it is seldom or only rarely used by itself, for the simple reason that it is not sufficiently soluble in water. In order to dissolve one gram of thymol in a litre of water, fifty grams of alcohol are required to effect a perfect solution, which, in cases of wounds, causes considerable pain, and is, therefore, objectionable. The addition of caustic soda increases the solubility of thymol in water, but the solution becomes turbid and throws down a more or less dense precipitate.

The aforementioned objections are remedied by following the directions of Hermite (*Revue intern. et sem. med.*), who recommends the addition of tartaric acid in connection with caustic soda. The following is his formula:

Thymol.	
Tartaric Acid.	
Caustic Soda.....	of each one gram.
Water.....	two litres.

Dissolve the tartaric acid, caustic soda, and thymol in a little lukewarm water, and add thereto the remainder of water.—*Meyer Bros. Druggist.*

Sublimation and Distillation in Shop Bottles.

On the interior of shop bottles containing volatile substances, either solid or liquid, there will frequently be noted a deposition which, in the case of solids, is generally crystalline in character, the liquid, of course, consisting merely of aggregations of small drops. On turning the shop bottle around this will disappear. Eliesegang has observed (*Naturwissenschaft. Wochenol*) that the condensation is not necessarily on the side of the bottle which is coolest; that therefore it is not merely the influence of heat to which this phenomenon is due, and careful observation has proven that the deposition takes place upon that portion of the container upon which the greatest amount of light falls. This is true whether artificial light or natural sunlight be brought to bear upon the container.—*American Druggist.*

Castor oil can be deodorized by washing with hot water, the mixture being allowed to stand long enough to permit the water to separate entirely from the oil.

To remove the objectionable odor of iodoform from the hands, as well as from the spatula and vessels which have come in contact with it, spirits of turpentine have been recommended.

To gild glass and porcelain use the following mixture: Lavender oil nine hundred parts, chloride gold one hundred parts, bismuth subnitrate five parts, and chrome green fifty parts. Apply, allow to dry, and heat in a muffle furnace.

Colors for Syrups.

The *National Druggist* recommends the following as harmless colors for syrups, etc.

Blue. Tincture of indigo; or indigo carmine, 250 grains of the latter to the ounce of water. Indigo carmine can be purchased from dealers in such articles, but if you desire to prepare it yourself, proceed as follows:

Take of best indigo in lump any convenient quantity, say 30 grains. Powder in a large capsule (as it swells enormously in subsequent treatment) and dry thoroughly in the water-bath. When entirely dry, add, drop by drop, stirring constantly with a glass rod, four times its weight of fuming sulphuric acid. Cover the now swollen mass closely, and set the capsule aside for twenty-four hours. At the expiration of this time add three ounces of distilled water, a little at a time, with constant stirring, and transfer to a tall, narrow beaker, or a similar bottle, and let stand for four days, giving the liquid an occasional stirring in the meantime. Finally neutralize with sodium carbonate, and be very careful in doing it, as the least excess of alkali may cause all the indigo to separate in a doughy mass. Filter the neutralized solution and evaporate to dryness, at a low heat, in a water-bath. The resultant powder, sulph-indigotate of sodium, is the commercial indigo carmine.

Red. Cochineal syrup prepared as follows:

Cochineal in coarse powder.....	2 drs.
Potassium carbonate.....	40 grs.
Distilled water	5 fl. drs.
Alcohol	4 fl. drs.
Simple syrup sufficient to make.....	20 fl. ozs.

Rub up the potassium carbonate and cochineal together, add the water and alcohol, and finally add the syrup.

Carmine also makes a fine red. To prepare it, dissolve the carmine by rubbing with a few drops of ammonia water, and adding sufficient water to make one ounce for every 20 grains of carmine used.

Yellow. Tincture or infusion of Besiello saffron. Tincture of turmeric, or of "grains d'Avignon" (berries of a rhamnus found in the south of France), or solution of quercitrin.

Orange. A red added to any of the yellows will produce an orange tint. Otherwise use tincture of red sandal wood, to which add sufficient ethereal extract of orange to obtain the desired tint.

Green. Make an infusion of one part of saffron to twenty parts of soft water and to it add sufficient solution of indigo carmine until the desired shade is attained. Another green may be made as follows:

Tincture of crocus.....	8 parts.
Glycerin.....	8 parts.
Solution of indigo carmine	3 to 5 parts.

Mix.

A green powder that is useful in many ways may be made by thoroughly mixing

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THE END OF A



Celebrated Case

The United States Court of Appeals allirms the decision of Judge Swan against the California Fig Syrup Co

A victory for Frederick Stearns & Co. against the Patent Medicine Monopolists.

A decision of great importance, not only to physicians and pharmacists, but to the entire drug trade of the United States.

The attempt to monopolize the Materia Medica and the manufacturing business of the pharmacists by the Patent Medicine Trade rebuked by the courts.

Proper and descriptive names cannot be trade-marks, but are free to the use of all.

T

HE celebrated Syrup of Figs case, after being thrown out of the United States Circuit Court of Eastern Michigan, by Judge Swan (April 1, 1895), was then taken to the Court of Appeals (February 5, 1896) by the complainant, hoping to obtain a reversal of decision. The Court of Appeals, however, affirmed (April 14, 1896) the degree of the lower court, with costs to the California Fig Syrup Co. Judge Taft, in delivering the opinion to the Court of Appeals, said that, as their preparation virtually contained no figs, the California Fig Syrup Co., "in using the name to designate the preparation which it sells, is guilty of a distinct misrepresentation to the public." "The term Syrup of Figs cannot be used as a trade-mark." "The complainant has built up its business and made it valuable by an international deceit of the public." "This is a fraud upon the public and a court of equity will not encourage it by extending any relief to the person who seeks to protect a business which has grown out of, and is dependent upon, such deceit." "It is well settled that if a person wishes his trade-mark property to be protected by a court of equity, he must come into the court with clean hands, and if it appears that the trade mark for which he seeks protection is itself a misrepresentation to the public, and has acquired a value with the public by fraudulent misrepresentations in advertisements, all relief will be denied to him."

The court reaffirmed the position of Judge Swan in his decision that the name "Syrup of Figs" was both descriptive and deceptive, and therefore could not be employed as a trade mark.

The principles involved in this case are of vital importance to the profession of pharmacy and the drug trade of America. Had it been decided against us, then any nostrum maker could have monopolized any part of the English language for his individual use. If Syrup of Figs had been proven a legal trade mark, then Syrup of Sarsaparilla would soon have been monopolized in the same manner, to be followed by Syrup of Rhubarb, Syrup of Senna, etc., until the name of every drug in the materia medica had been trade marked and thus gobbled up by the nostrum makers. By asserting our rights, and fighting this case at an enormous expense to us, we have established a precedent which will prevent the trade from being imposed upon in similar cases in the future as it has been in the past. We have also demonstrated that the entire patent medicine business itself is virtually a fraud upon the public, and has no standing in the courts unless it can prove that its claims made in advertisements are true to the fact.

In future it will be well for the nostrum makers, before claiming injury from others, to be sure that they ask for protection where they have the right, and to come into court with clean hands themselves. Their attempts at creating an exclusive monopoly of the manufacture and sale of mere aggregations of old and well-known drugs by registering the only name by which the preparations are known to the public as trade marks must be put down by the courts, or pharmacy will be seriously injured thereby.

The full opinion, as rendered by Judge Swan, of the United States Circuit Court, which was confirmed by Judge Taft of the United States Appellate Court, will be mailed on application to all those interested.

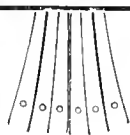
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1 part of indigo carmine in powder with 100 parts of turmeric and a similar amount of milk sugar.

Finally, chlorophyll is now a commercial article and may be got through any wholesaler.

Brown. Mix liquorice juice and tincture of catechu in proportions suitable to the desired shade.

Pink. Carmine dissolved in liquor potassæ, one part to six, makes a beautiful pink, which must be cut, before using, with forty-eight parts of rose water.

Compounds of Camphors and Phenol Derivatives.

By T. W. SCHAEFER, M.D., Kansas City, Mo.

I have previously drawn attention to the fact that when common or Japan camphor and crystallized carbolic acid are mixed together and heated, a colorless liquid, possessing antiseptic properties, is the result. This substance is now known under the names of carbolated camphor, phenolated camphor, and camphor-phenique.

At the time when I was experimenting with phenol camphor the thought naturally occurred to me to extend my investigations to the other camphors and phenol derivatives. I found that a large number of such compounds could be easily obtained, closely analogous to combinations formed by the union of camphor with the different phenols.

Besides the common or Japan camphor occurring in the *Laurus camphora* there are many labiate plants which contain camphors. *Matricaria-camphor*, for instance, is found in the oil of *Matricaria parthenium*; absinthol, in the oil of wormwood; myristicol, in the oil of nutmeg; patchouli-camphor, in the oil of patchouli (caryophyllin, in cloves, I find, is no camphor at all); and homologous with these are a number of others found in many essential oils, showing a great analogy in their composition and physical and chemical properties to common camphor. Most of these camphors readily unite with the different phenols and form characteristic chemical compounds.

The reaction between camphor and chloral, the result being a liquid, has been repeatedly observed. Acetic, benzoic, citric, salicylic, and valeric acids, salol, alpha- and beta-naphthol, form similar liquid combinations with camphor. All these combinations, as well as the one obtained when menthol is acted upon by chloral, have been recently employed in medicine. Even trichloroacetic acid, as I have observed, forms a liquid compound with menthol. Thymol, when heated with camphor, forms a transparent oily fluid. In this connection I should not fail to mention camphor-menthol, a clear liquid formed by the union of menthol with camphor. Dr. Seth Scott Bishop was the first who described it.

Menthol, like camphor, forms a large number of compounds with the different

phenol derivatives. The compound formed by the union of menthol with phenol will be described later on.

Some of the di- and triatomic phenols unite with menthol and form characteristic compounds. Pyrogallol-menthol, for instance, is a thick, oily liquid. Resorcin-menthol is even less mobile than the one just mentioned, and gives a beautiful dark-blue color on the addition of concentrated commercial sulphuric acid. Resorcin camphor likewise gives a blue color with the acid.

The compound of menthol with alpha-naphthol is a syrupy liquid, possessing the same properties which characterize phenol-camphor. Beta-naphthol forms with menthol a combination which is exactly like the one just mentioned. Thymol-menthol is a transparent, mobile liquid.

No doubt combinations of this kind, of menthol with the phenols of hydrocarbons allied to anthracene (alpha-anthrol, beta-anthrol, etc.), are theoretically possible. There is no end, so to speak, to these combinations. I do not propose to enter minutely into the chemistry of these compounds, for the constitution of the different camphors has not yet been fully established, especially as there is still some doubt in regard to the manner in which the benzene-nucleus is united. The benzene-nucleus is supposed to exist in the form of a para-compound in common and Borneo-camphor, and it is claimed by some chemists that they (the camphors) do not contain any bivalent ethylene combination. These phenolated camphors, I would suggest, show a great similarity to ac. tetra-hydro-beta-naphthol.

MENTHO-PHENOL.

Mentho-phenol, as its name indicates, is obtained by adding one part of phenol to three parts of menthol, and then melting the mixture. A transparent liquid is obtained, having an aromatic odor and taste. Applied to the tongue it produces a temporary anesthesia similar to that of cocaine, although not so lasting as the latter. It is, of course, lighter than water, having a specific gravity of 0.973. It is nearly insoluble in water and glycerin, but readily dissolves in alcohol, ether, chloroform, and most of the light and heavy oils. It dissolves iodine, iodoform, and aristol. Water of ammonia mixed with mentho-phenol changes it to a dark vinous color in a few days. It is antiseptic with strong analgesic properties. It may be used preparatory to cauterizing chancroidal sores and curetting necrotic surfaces. As a mouth-wash it may be used with advantage, two drops being mixed with an ounce of the aqueous menstruum.

THYMOL-CAMPHOR.

This substance is prepared by heating camphor and thymol together. It is a transparent, oily fluid, and behaves the same way as phenol camphor does towards its solvents. It is milder than mentho-phenol and I often use it in dermatological practice. I have used thymol camphor

in pruritus of the scrotum and in pediculosis pubis with apparently good results. Applied to the normal, healthy skin it does not occasion any irritation or redness.

RESORCIN-CAMPHOR.

This liquid is simply obtained by beating equal parts of resorcin and camphor. Its indications are the same as those of thymol camphor. It is superior to the old mercurial ointment in removing pediculi.

The Phenacetin Question.

The expectancy of those engaged in the manufacture and sale of phenacetin will be satisfied at seeing the matter solved at last, or, at all events, so far solved that one more case in the appeal courts will finally decide it. The trades marks department of the German Patent Office has allowed the claims of J. D. Reidel & Co., and other firms manufacturing phenacetin, that the word should be struck off the list of protected words. In the reports of the decision, it is noted that the Elberfelde manufactory discovered para-acetphenetidin in 1887, and brought it into commerce as "acetphenetidin" and "quininphenid," but changed the name, in October of that year, to phenacetin. In 1888, however, Reidel started the manufacture, and soon afterwards other firms followed suit, selling their product only under the name of phenacetin, without the original firm raising any objection. It may be that this was due to the inability to register words as trade marks at that time, but, as they had entered their label and name in the register, they could have issued a warning in circulars and papers. Instead of this, Baeyer's caused a fresh label to be issued bearing the words "Phenacetin-Baeyer" instead of "phenacetin," and thenceforward dealt in the former article only. The Hoechst works issued, in 1889, a label with "Phenacetin-Hoechst" on it, against which no objection was raised. In the new edition of 1890 of the German Pharmacopœia, the words "phenacetinum," "phenacetin," appeared as official, without any protest being made. Under these circumstances the claim to protection appears to disappear. It is further pointed out that, as far as the consumer is concerned, the word phenacetin is merely the name of a certain substance; under this name the body is found described in Meyer's "Konversations-Lexicon," Vol. 12, 1888, without being described as belonging to Baeyer & Co. Finally, the admission of the word into the Pharmacopœia in 1890 destroys the individual rights, making the word free. Messrs. Baeyer & Co. have the right of appeal within one month.—*British and Colonial Druggist.*

An excellent solder for glass is said to be an alloy of ninety-five parts of tin and five parts of copper.

The National Formulary.

A new and revised edition of the National Formulary has been published. A number of changes occur in this edition, many new preparations being added and others omitted. The new preparations are as follows:

Acidum Citricum Saccharatum, Acidum Tartaricum Saccharatum, Elixir Digestivum Compositum, Elixir Paraldehydi, Emulsio Olei Terebinthinæ Fortior, Extractum Rhamni Purshianæ, Fluidum Aromaticum, Glyceritum Guaiaci, Liquor Auri et Arsenii Bromidi, Liquor Magnesii Sulphatis Effervescens, Liquor Zinci et Alumini Compositus, Pulvis Acetanilidi Compositus, Pulveris Effervescentes, Sodii Bicarbonas Saccharatus, Syrupus Codeinæ, Syrupus Pini Strobi Compositus, Syrupus Rhei et Potassii Compositus, Tinctura Viburni Opuli Composita.

The following, which were in the U.S.P. of 1880, but were eliminated from that of 1890, have also been placed in the National Formulary.

Acetum Lobeliæ, Acetum Sanguinarie, Amylum Iodatum, Ceratum Extracti Cantharidis, Ceratum Sabinæ, Charta Cantharidis, Emplastrum Ammoniaci, Emplastrum Asafetide, Emplastrum Galbani, Emplastrum Picis Canadensis, Extractum Lactucarii Fluidum, Extractum Malti, Extractum Mezerei Fluidum, Infusum Brayere, Linimentum Cantharidis, Linimentum Plumbi Subacetatis, Liquor Gutta Perchæ, Liquor Pepsini, Mixtura Magnesiae et Asafetidis, Mucilago Cydonii, Pilulæ Ferri Compositæ, Pilulæ Galbani Compositæ, Spiritus Odoratus, Syrupus Ferri Bromidi, Tinctura Conii, Tinctura Ignatiæ, Trochisci Magnesiæ, Trochisci Sodii Santoninatis, Unguentum Acidi Gallici, Unguentum Mezerei, Unguentum Sulphuris Alkalinum, Vinum Album Fortius, Vinum Aloes, Vinum Rhei.

In the following preparations the titles have been changed.

Aqua Hamamelidis to Aqua Hamamelidis Spirituosa.

Liquor Sodii Citro-Tartratis to Liquor Sodii Citro-Tartratis Effervescens.

Mixtura Chloroformi et Opii to Mixtura Chloroformi et Cannabis Indicæ Composita.

Ferri et Quininae Citrus Effervescens to Ferri Phosphas Effervescens.

Potassii Bromidum Effervescens to Potassii Bromidum Effervescens Cum Caffeina.

Sal Carolinum Factitum Effervescens, Sal Kissingense Factitum Effervescens, Sal Vichyanum Factitum Effervescens, and Sal Vichyanum Factitum Effervescens Cum Lithio are each preceded by "Pulvis."

Pulvis Iodoformi Dilutus changed to Pulvis Iodoformi Compositus, Syrupus Ferri Arseniatis to Syrupus Ferri Arseniatis.

A paint remover is made by forming an emulsion of two parts of ammonia with one part of turpentine.

Spraying of Fruit Trees.

The bulletins issued by the Department of Agriculture and the "cuts" which they contain illustrative of this subject are such as should convince every fruit-grower of the necessity of giving careful attention to the spraying of fruit trees. The department has shown conclusively that both in quality and quantity our fruit crop can be greatly helped, and "grape mildew" and "apple scab" kept at bay, by the judicious use of a weak spraying liquid.

The time was when this was difficult of preparation, but the suggestions of the department have led to the adoption by manufacturers of needed preparations, so that now the liquid can be made ready without either inconvenience or risk. All that is required is to take half a barrel of cold water, add a quart of liquid ammonia and thereafter a 3 oz. packet of carbonate of copper. These articles are advertised in our columns, and can be had anywhere in packets ready for use, so that there is no inconvenience in having the spraying liquid prepared.

We hope that every fruit-grower who has access to this paper, and also those who number the fruit-growers amongst their customers, will see it to be their interest to give attention to the instructions of the department in this matter, as we feel quite sure that the result will be very much to their advantage and the advantage of the country.

Smuggling Phenacetine.

Beneath the cleverly-fitted false bottom of a trunk which a Chinaman presented for examination to the local United States customs officers at the Bonaventure station, Montreal, recently, was found some thirty-six pounds of phenacetine. Mr. McGuire called on Mr. Twohey, when he made the discovery, and to that gentleman John Chinaman stated that it was Chinese flour, and that he wanted the trunk shipped to New York. This was done in the usual way, in the hope of catching the shipper, but the average Celestial is too smooth to be caught in that way and he did not accompany his property, therefore the United States Treasury agent at Plattsburg did not make the capture. Subsequently it was ascertained that three well-known Chinamen were concerned in the matter.

Insecticides.

For the convenience of numerous inquirers the standard formulas of insecticides and fungicides, from the latest authorities, are here given in a group, with the suggestion that they be preserved for reference:

BORDEAUX MIXTURE.

Copper sulphate..... 6 pounds
Quicklime..... 4 pounds
Water..... 40 gallons

Dissolve the copper sulphate by putting it in a bag of coarse cloth and hanging

this in a vessel holding at least four gallons, so that it is just covered by the water. Use an earthen or wooden vessel. Slake the lime in an equal amount of water; then mix the two, and add enough water to make forty gallons. It is then ready for immediate use. For rots, molds, mildews, and all fungous diseases.

AMMONIACAL COPPER CARBONATE.

Copper carbonate..... 1 ounce
Ammonia..... Enough to dissolve the copper
Water..... 9 gallons

The copper carbonate is best dissolved in large bottles, where it will keep indefinitely, and it should be diluted with water as required. For same purpose as Bordeaux mixture.

COPPER SULPHATE SOLUTION.

Copper sulphate..... 1 pound
Water..... 15 gallons

Dissolve the copper sulphate in the water, when it is ready for use. This should never be applied to foliage, but must be used before the buds break. For peaches and nectarines use twenty-five gallons of water. For fungous diseases.

PARIS GREEN.

Paris green..... 1 pound
Water..... 250 gallons

If this mixture is to be used upon peach trees, one pound of quicklime should be added. Repeated applications will injure most foliage unless lime is added. Paris green and Bordeaux can be applied together with perfect safety. The action of neither is weakened, and the Paris green loses all caustic properties. For insects which chew.

LONDON PURPLE.

London purple..... 1 pound
Water..... 250 gallons

Same proportion as Paris green, but as it is more caustic it should be applied with the lime or with the Bordeaux mixture. Do not use it on peach or plum trees. For insects which chew.

HELLEBORE.

Fresh white hellebore..... 1 ounce
Water..... 3 gallons

Apply when thoroughly mixed. For insects which chew.

KEROSENE EMULSION.

Hard soap..... 1½ pound
Boiling water..... 1 gallon
Kerosene..... 2 "

Dissolve the soap in the water, add the kerosene, and churn with a pump for five to ten minutes. Dilute ten to fifteen times before applying. For insects which suck, cabbage-worms, and all insects which have soft bodies.

EXPERIMENTAL CHEMISTRY. — Old lady (to druggist): "Are you quite sure this is carbonate of soda, not arsenic?" Chemist: "Quite, ma'am. Try it and judge for yourself."—*The Great Divide.*

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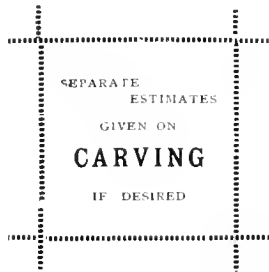
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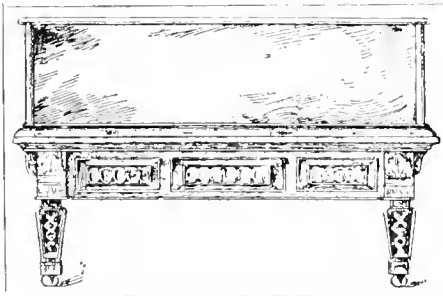
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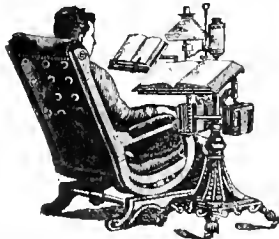


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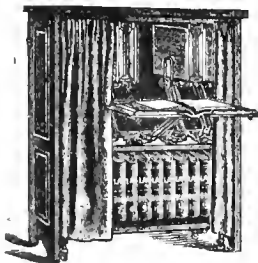
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The Chemical Analysis of Water.*

By HERBERT E. DAVIES, M.A., B.Sc., F.I.C.

Within the memory of people still living water analysis was a thing unheard of. If a water supply were reasonably clear, sparkling, and free from bad taste, people asked for nothing more, and those who objected to a well sunk directly beneath a crowded churchyard or surrounded by cesspools were regarded as eccentric faddists. Cholera and other epidemics, which swept away thousands of victims, were regarded as visitations of Providence, to be received in a spirit of humility, and it took a long time to persuade the conservative English mind that a bad water supply and various diseases are cause and effect. It was only after years of persistent teaching of the necessity for pure water that the lesson was learned, and much of the credit for the vastly improved state of things is due to the many eminent chemists who have devoted their best energies to devising means for distinguishing between good waters and bad. Water analysis is a peculiarly English branch of science. All the standard methods have been devised by English chemists, such as Wanklyn, Frankland, Armstrong, Clark, Tidy, and others, and it is in the English-speaking countries that water analysis is chiefly practised. It is only necessary to consult a Continental work on hygiene to see how very much behind us they are in this respect, and how small a part water analysis plays. The result is seen in the cholera outbreaks at Hamburg, where the water supply was a disgrace to a civilized community.

In the early days of water analysis the examination was confined almost exclusively to the mineral constituents, and according to the amount of the various salts found some rough classification of waters could be made. And even now, if we are making an analysis for manufacturers, it is the mineral salts which determine the suitability of the water, because, if a water is to be used, for example, in a boiler, the presence of organic impurity does not matter, whereas an excess of lime salts will be very injurious.

FIRST GREAT ADVANCE IN WATER ANALYSIS.

The first great advance in water analysis occurred about 1867, when Wanklyn on the one hand, and Frankland and Armstrong on the other, devised their respective processes for estimating the amount of organic matter in water. It is obvious that the suitability of a water from a hygienic point of view can only be determined by estimating in some way the amount of organic matter in the water, because, whether we regard zymotic diseases as caused by micro-organisms or by some poisonous product of living matter, the cause of the disease will be present in the water as organic matter.

A most deplorable personal quarrel arose between the originators of the two methods. Unfortunately, their insistence upon their particular method only being necessary to get all the information requisite to judge of a water caused very bad blunders, and to this is due much of the contemptuous reference to mere chemical analysis and its inability to detect pollution.

To see how far we have advanced from the day when a chemist would confidently pass judgment on a water after determining the free and albuminoid ammonia, I propose to point out the methods adopted nowadays by a competent chemist who is called upon to decide about the purity or otherwise of a water. The whole of the methods are not employed in every case—people cannot expect to get more than they will pay for, but if a complete examination be made it would be on something like the following lines:

HOW SAMPLES SHOULD BE TAKEN.

In the first place, it is an advantage to have the sample taken by a person who knows what he is about. Every analyst has water sent to him at times in dirty wine bottles or stone jars—which may or may not be clean—sometimes closed with a rotten old cork, or even with a plug of paper. If the cork be too small, it is easy to remedy that, in some people's opinion, by wrapping a bit of rag round it, and so on. The first considerations should always be the scrupulous cleanliness of the vessel in which the water is to be carried, and obtaining a fair representative sample of the supply in question, avoiding accidental impurities. It is important also to notice the source of the water: if a well, whether it be shallow or deep, whether there be any possible source of pollution near at hand, and so on. It is curious to note how very reluctant people are, as a rule, to give any information at all about a sample. They seem to think that the analyst ought to find it out for himself, and that they are being in a manner defrauded if they give him any assistance.

PHYSICAL PROPERTIES.

When the sample is taken it is as well to proceed with the analysis without much delay, because, in warm weather especially, the organic matter is liable to undergo alteration. In the general examination of water we deal first with the color, as determined by viewing it in a 2-foot tube against a white background. Generally speaking, there is a distinct brown color with a decided green tinge. This is due to vegetable matter dissolved in the water, and when the supply is from a peaty soil, what is known as "upland surface water," the color may be very deep indeed, as peat gives much soluble matter to the water. The London water examiners have a graduated scale of tints, but in an ordinary way it is sufficient to note that there is a light or deep tint, as the case may be. Clearness or turbidity is noted

as determining the efficient filtration of the water. When water contains much sewage there is a peculiar opalescent appearance, which is very characteristic. The taste and smell are noted, though this does not, as a rule, give much information, because badly polluted well water is often very palatable. However, if there should be any unpleasant smell, it may be taken as almost certain that the water is polluted. It is best to warm the water slightly in an open dish to detect any smell there may be.

THE REACTION.

It should be noted whether the water is acid or alkaline. This is best observed with methyl orange. In the great majority of cases water is faintly alkaline owing to the dissolved carbonate of lime. An acid reaction generally points to pollution with manufacturing waste.

MICRO-ORGANISMS.

In the general examination may be included the microscopical examination of the residue. This should never be neglected, because it often affords most valuable information. The water is allowed to settle for some hours, and then is carefully decanted or siphoned off until about 50 c.c.m. are left. This is then well shaken round in the bottle, and poured into a conical glass, and again allowed to settle. A drop is then taken with a pipette from the bottom and examined. As there may be anything from micrococci to small fishes, a wide experience in microscopical work is required to enable the observer to come to a right conclusion from what he sees. There are certain organisms which are peculiarly characteristic of sewage pollution, and others, again, which are only found in pure spring waters.

THE INORGANIC CONSTITUENTS.

We now come to the real chemical analysis of the water, and here it may be noted that results of an analysis are expressed in grains per gallon and parts per 100,000—a difference which is a most regrettable difficulty to analysts and their clients, as much confusion arises owing to people getting different sets of figures.

The total dissolved matter is estimated by evaporating a known quantity of the water to dryness, and weighing the residue. At one time it was thought that the amount of organic matter could be determined by igniting this residue and finding how much weight was lost by the ignition, but during evaporation we drive off some of it, and combined water nitrites, nitrates, and carbonates are decomposed, and some chlorides are volatilized, so that it is quite fallacious to consider the loss as organic matter. The amount of dissolved matter varies between 10 gr. to the gallon and 150. It is impossible to say that any particular number renders a water fit for use or the reverse, because a water may contain a large amount of dissolved salts and yet be very pure organically, and *vice versa*. This consideration applies to most of the

* Abstract of a paper communicated to the Liverpool Chemists' Association.

constituents. In many popular books on water analysis we see tables divided in three columns giving the amounts of the various constituents which render a water safe, usable, and dangerous. Such tables are worthless and misleading.

THE ORGANIC MATTER.

We have now to consider the determination of the organic matter. There are three methods in use—namely, Wanklyn's ammonia process, Frankland's combustion process, and Tidy's permanganate process. The first mentioned is the most generally employed. In it half a litre of the water is placed in a clean retort and distilled with carbonate of soda, and the ammonia in the distillate estimated with Nessler's solution. Alkaline permanganate is then added, and a further quantity of ammonia distils over. This is the albuminoid ammonia. The first lot of ammonia is called free or saline ammonia. It is derived from the ammonium salts in the water and any urea there may be. The object of adding carbonate of soda is to liberate ammonia from the ammonium salts, and it is a curious fact that many books on water analysis omit all mention of it. Another mistake, which one writer copies from another until it has become accepted as perfectly true, is that if the first 50 c.cm. of the distillate be tested the amount of ammonia found is two-thirds of the whole quantity of free ammonia. I have found this statement to be altogether untrue. Free ammonia in a water is derived from organic matter, and is a measure of the amount of organic matter which has undergone change.

If sewage or other matter of a like kind gets into water the ordinary putrefactive bacteria decompose the organic matter, with formation of ammonia, and the nitrifying organisms carry on the change further, giving rise to nitrous and nitric acid. Therefore much free ammonia is very strong evidence of sewage contamination. The albuminoid ammonia is derived from the unchanged organic matter. It has been found that if organic matter, such as white of egg, be boiled with a strongly alkaline solution of potass. permanganate, a great part of the nitrogen in the organic matter is converted into ammonia. Therefore free ammonia is a measure of the decomposed organic matter in the water, and albuminoid ammonia is a measure of the unchanged organic matter. Two objections will be at once raised. First, how can you tell whether the organic matter is harmless vegetable matter or dangerous animal matter? Well, it is a curious fact that vegetable matter gives rise to very little free ammonia, and a practised hand can also distinguish by the manner in which the albuminoid ammonia comes off. It comes off much more slowly and more regularly. But the most important means of distinguishing them is this, that animal matter is always accompanied by chlorides and nitrates, whereas vegetable matter is not. The second objection is

that, although we can tell how much ammonia there is, we do not, therefore, know how much organic matter there is. The answer to this is that it does not matter in the least. Long experience has shown that, other things being equal, a certain amount of free and albuminoid ammonia respectively denote a pure water, while beyond certain limits there has been pollution; and if a water has been polluted by sewage it really does not matter much whether there is an ounce of it or a pound of it in a gallon. The water is equally unfit for use in either case.

FRANKLAND'S METHOD LOSING GROUND.

Frankland's method of estimating the organic matter is supported by influential analysts, but, all the same, its days are numbered. It requires elaborate and delicate apparatus, much time and great skill; but the fatal objection to it is that there are unavoidable sources of error in it which make it quite unreliable. Proof of this has been given lately. It has been shown that when the most eminent chemists analyze the same water their results may differ by more than 100 per cent., and quite a different decision be arrived at. The method, stated briefly, consists in evaporating a large volume of the water to dryness and then making an organic combustion of the residue with copper oxide. From the amount of CO_2 and N found it is supposed that the amount of organic matter can be calculated, and from their relative amounts whether it is animal or vegetable. It would take too long to explain the various sources of error; it is sufficient to say that nothing but Frankland's great influence and official position keep the process alive. I have never heard of its being adopted outside England, whereas Wanklyn's process is used all over the world.

Tidy's permanganate process consists simply in measuring the amount of permanganate decomposed by the water; but as other substances besides organic matter decompose permanganate, much reliance cannot be placed upon the results obtained.

Closely related to organic matter are chlorides and nitrates. Nitrates are derived from the oxidation of organic matter by means of the nitrifying organisms which swarm in the upper layers of the soil. Therefore, if we find much nitrate in a water, it is certain proof that it has been polluted with organic matter, and, moreover, with animal matter. Until recently it was thought that if the organic matter had been converted into nitrates it was evidence that the water had become so completely oxidized as to be safe, but research has shown that under favorable conditions nitrification may go on so rapidly that, while nearly all the organic matter is converted, disease germs still retain their vitality.

THE IMPORTANCE OF CHLORIDE DETERMINATION.

The determination of the amount of chlorine in the form of chlorides is a most

valuable guide. Urine and sewage generally contain a large quantity of sodium chloride, and no treatment to which the sewage can be submitted will remove it; therefore the presence of a large quantity of chlorides in a water is a most decisive proof of sewage pollution. Of course, it must be remembered that in certain cases—e.g., near the seashore or in places like the Cheshire salt district—there will naturally be a large quantity of chlorides in the water; but whenever we find more chlorides than the normal amount, accompanied by nitrates, and high free and albuminoid ammonia, we can say with certainty that the water has been polluted with sewage.—*British and Colonial Druggist*.

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	DOSE (GM.)	
	SINGLE.	DAILY.
Acetal.....	8.0	16.0
Acid, Creosotinic.....	0.5	5.0
Cubebic.....	1.0	2.0
Iiiodosalicylic.....	1.0	3.0
Dithiosalicylic.....	1.0	1.5
Hydrobromic.....	0.5	2.0
Adonidin.....	0.005	0.03
Agathin.....	0.5	1.0
Alphol.....	0.5	2.0
Analgen.....	1.0	4.0
Anemonin.....	0.03	0.1
Antinervin.....	0.5	2.0
Antisepsin.....	0.05	0.2
Antispasmin.....	0.05	0.2
Antithermin.....	0.2	0.8
Apocodeine.....	0.02	0.1
Arbutin.....	1.0	4.0
Asaprol.....	1.0	4.0
Aspidospermine Hydrochlor.....	0.003	0.006
Baptisin.....	0.03	0.1
Benzanilide.....	0.5	2.0
Benzonaphthol.....	0.5	2.0
Benzosol.....	0.75	3.0
Betol.....	0.5	2.0
Boldol.....	0.25	1.0
Caffeine-chloral.....	0.4	2.0
Carniferrin.....	0.5	2.0
Chloral Hydrocyanate.....	0.02	0.1
Chloralimide.....	1.0	4.0
Chloralose.....	0.75	3.0
Cornutin.....	0.005	0.02
Creasote Carbonate.....	1.0	6.0
Cresalol.....	0.5	2.0
Daturine.....	0.001	0.003
Diuretin.....	0.5	4.0
Ergotinine.....	0.001	0.015
Ethoxycaffeine.....	0.25	1.0
Euphorin.....	0.5	2.0
Exalgin.....	0.02	0.1
Extr. Adonidis vern., fl.....	0.5	2.0
Boldo, fl.....	0.5	2.0
Cacti Grandiflor, fl.....	0.75	3.0
Coto, fl.....	0.5	2.0
Gelsemium, fl.....	0.2	0.6
Ferratin.....	0.5	2.0
Formanilid.....	0.25	1.0
Gaduol.....	0.2	0.8
Guaiacol Salol.....	1.0	5.0
Guaiacol Carbonate.....	1.0	6.0

DOSE (G.M.)
SINGLE. DAILY.

Helenin	0.3	1.0
Helleboreine	0.03	0.12
Hemalbumin	1.0	5.0
Hemogallol	1.5	4.0
Hemol	0.5	1.5
Hydracetin	0.1	0.4
Hydrargyr. Thymol. Acet.	0.005	0.02
Hydrastinine	0.05	0.2
Hydroquinone	0.5	2.0
Hypnal	1.0	4.0
Hypnone	0.05	0.2
Iridin	0.3	1.0
Iodocaffeine	0.5	2.0
Iodotheobromine	0.5	2.0
Iodopyrine	1.0	4.0
Lactophenine	1.0	5.0
Lupetazine	1.0	4.0
Lycetol	0.5	2.0
Lysidin	1.0	5.0
Malakin	1.0	6.0
Methacetin	0.5	2.0
Methylacetanilid	0.3	1.5
Methylal	1.0	5.0
Migranin	0.75	3.0
Neurodin	1.0	4.0
Nickel Bromide	0.5	1.5
Nicotine	0.001	0.005
Orexine	0.4	1.5
Hydrochlor	0.5	2.0
Paracotoine	0.1	0.3
Paraform	3.0	9.0
Pental	1.0	4.0
Phenocol Hydrochlor	0.5	2.0
Piperazine	1.0	4.0
Podophyllotoxin	0.02	0.06
Pyridine	0.05	0.3
Salacetol	1.0	5.0
Salicylamide	0.15	0.5
Saligenin	3.5	9.0
Salipyrine	1.0	4.0
Salacoll	1.0	5.0
Salophen	1.0	4.0
Somnal	1.0	4.0
Spermine	1.0	4.0
Styracol	1.0	5.0
Symphorol	1.0	4.0
Tannigen	0.5	2.0
Terpinol	0.5	1.0
Tetronal	1.0	4.0
Thermodin	0.5	2.0
Thyroidin	0.05	0.5
Tinct. Naregamia Alata	1.0	4.0
Trional	1.0	5.0
Tussol	0.5	2.0
Uralium	2.0	8.0
Urethan	1.0	4.0
Ureidin	1.0	5.0
Uropherin	1.0	5.0
Zinc Bromide	0.25	0.5
Salicylate	0.1	0.5

—*Merck's Report.*

A Silvering Paste for Metals.

A handy method of coating copper, gun-metal, brass, German silver, and even iron, with a thin but firmly adherent brilliant film of pure silver, must often prove very serviceable. Small portions of the ordinary plated articles in everyday use "wear" very quickly, showing the base alloy beneath along the edges and more exposed portions, thus not only looking shabby prematurely, but being in some cases even dangerous in use if left in contact for a few minutes with acid or other particularly solvent fluids. The great secret of successful plating or replating consists in taking care that the surfaces to be coated with silver are, in all respects, perfectly clean, and especially that they are free from the least trace of oleaginous matter, and from oxide or tarnish.

A good way of ensuring this is to clean the articles with whiting in the usual way, and then to pour over them a hot solution of caustic potassa of soda 10 per cent., rinsing them thoroughly with boiling water and drying very quickly, unless we happen to require them for immediate use, when it is just as well to keep them under water for the short time until the silvering process is actually compressed. In the case of very old plated goods having rather rough surfaces, it is as well to brush them over first with a 7 per cent. solution of cyanide of potassium, and then with hot water only. The articles having been thoroughly cleansed may be wiped dry, or nearly so, and a little of the following composition rubbed on with a soft but short-haired brush, or if the surface be a large plain one, without embossed or engraved work in it, a pad of cotton-wool covered with chamois leather; this has to be gently twirled round until the desired effect is produced, when a good washing with warm water, rapid drying, and a final rub up with a plate brush, or leather, finishes the operation. The silvering composition is thus prepared:

Creta precip.	120 gr.
Argent nit.	40 gr.
Potass chlorid.	28 gr.
" bitartrate.	114 gr.
Sodium chlor.	q.s.
Collodium flexile.	q.s.
Aqua dest.	q.s.

Dissolve the nitrate of silver in about three ounces of water and add thereto a sufficiency of chloride of sodium previously dissolved in water to throw down the whole of the silver as chloride. Well wash the precipitate, and allow it to settle, pour off the supernatant fluid, wash the precipitate two or three times and drain the chloride of silver as much as possible, performing all these operations in a dark place, or rather, at least, in a room lighted by an "orange" window or ruby lamp; stir into the magma first the chloride of potassium and then the cream of tartar. Fifty grains of pure dry Rochelle salt may be advantageously substituted for half the quantity of bitartrate of potassium here named, both dry and in fine powder. When the preceding ingredients have

been thoroughly incorporated the creta may be mixed in, a little water being added if necessary. The composition may now be kept, if so preferred, in a pasty condition, and stored in small "non actinic" bottles or jars for use; in this form the addition of a little pure honey is advantageous as tending to retain the pasty consistence and at the same time to enhance the "reducing" powers of the composition.

For general purposes, however, it is perhaps better to form the mixture into small cakes or tablets of convenient size, drying them carefully at a very low temperature, and giving them one or two coatings of flexible collodion by painting them all over with that fluid made rather thinner than usual by the addition of a little ether.—*Magazine of Pharmacy.*

Pastes and Mucilages.

By W. G. SCOTT.

LABEL GUM—FOR PAPER TO GLASS.

- (a) 4 oz. pulverized gum arabic.
6 fl. oz. boiling water.
(b) 2 fl. oz. glycerine.
Dissolve (a), then add (b).

NEW "TIN CAN" LABEL PASTE—FOR PAINT AND VARNISH CANS.

- (a) 2 lbs. brown sugar.
16 fl. oz. boiling water.
(b) $\frac{1}{2}$ oz. French gelatine.
4 fl. oz. water.
(c) 12 oz. corn starch.
Beat up with
12 fl. oz. cold water,
and pour the batter into
32 fl. oz. boiling water.

Continue boiling (c), if necessary, until the paste is translucent. Dissolve (a) and (b) separately, and then mix with (c). Paste for tin should not be too thin, and the tin should be free from grease. New tin generally has an oily or greasy surface, due to the tallow or oil used in the plating process. The grease may be removed with an alkali or with benzine, but in a factory where much labelling is done it is better to slightly roughen the surface of the tin where the label is to be placed with a piece of fine sandpaper, No. 0. This paste is very adhesive, and labels pasted with it will adhere nicely, even in a damp place. The sugar in its composition also renders it proof against cracking when exposed to a dry atmosphere.

PAPER PASTE—TO ADHERE TO METAL.

- (a) 1 oz. pulverized gum tragacanth.
4 oz. pulverized gum arabic.
20 fl. oz. cold water
(b) 4 fl. oz. glycerine.
80 grains thymol.
(c) 12 fl. oz. boiling water.

MUCIS GUM—OR PASTE FOR TISSUE PAPER.

- (a) 2 oz. pulverized gum arabic.
 $\frac{1}{2}$ oz. white sugar.
3 fl. oz. boiling water.

To disinfect the hands it is recommended that they be thoroughly brushed with a mixture of green soap and alcohol for not less than five minutes, then again in alcohol for the same length of time, and finally in an alcohol solution of corrosive sublimate one to one thousand.

To mix balsam Peru with oils, first mix with a little castor oil, after which any other fixed oil easily combines.

- (b) 1½ oz. common laundry starch.
3 fl. oz. cold water.
Make into a batter and pour into
32 fl. oz. boiling water.

Mix (a) with (b), and keep in a wide-mouthed bottle.

PERFECT PAPER PASTE—FOR PAPER ONLY.

- (a) 1 oz. powdered gum tragacanth.
8 fl. oz. boiling water.
(b) 1 oz. pulverized gum arabic.
½ oz. salicylic acid.
2 fl. oz. boiling water.
(c) 2 oz. wheat flour.
½ oz. white dextrine.
2 fl. oz. cold water.
Make into a batter and pour into
12 fl. oz. boiling water.

Mix (a) with (b), then add (c); finally add ½ oz. glycerine, to which has been added 8 drops oil of lavender. This is a good preparation, but is rather complicated, and too much work to make up.

PARCHMENT PASTE—FOR HEAVY PAPER.

- (a) 2 oz. pulverized rice.
12 fl. oz. boiling water.
(b) 2 oz. pulverized gum arabic.
4 fl. oz. boiling water.
(c) 1 oz. white sugar.
16 grains salicylic acid.
1 fl. oz. boiling water.

Boil (a) for about half an hour, let cool somewhat, strain, and then stir in (b) and (c). This paste is from an old English recipe, and is a nice article; but, like the preceding, it is too much trouble taken for the result obtained.

TRAGACANTH MUCILAGE—FOR PAPER.

- (a) 1 oz. pulverized tragacanth.
4 fl. oz. glycerine.
(b) 16 fl. oz. boiling water.

Macerate the tragacanth with the glycerine in a glass mortar, then stir the paste into the boiling water. This makes a very thick mucilage; 32 fl. oz. of boiling water gives a medium, and 64 fl. oz. a thin paste. Tragacanth paste works very smooth, but is not very adhesive.

HOUSEHOLD MUCILAGE—FOR PAPER, ETC.

- (a) 3 oz. pulverized gum arabic.
1 oz. white sugar.
5 fl. oz. boiling water.
(b) 1 fl. oz. white wine vinegar.
(or ¼ oz. acetic acid with ¾ oz. water.)

Mix (a) with (b). The acid is added to the gum in order to make it take hold of metal.

DEXTRINE MUCILAGE—FOR PAPER, ETC.

- 4 oz. yellow dextrine.
6 fl. oz. soft or distilled water.

Dissolve cold, as heat destroys the adhesive properties of dextrine. If a more fluid gum is desired, use 8 fl. oz. of water.

DEXTRO-ACACIA MUCILAGE—FOR PAPER PARCHMENT, ETC.

- (a) 4 oz. yellow dextrine.
8 fl. oz. cold water.
(b) 4 oz. pulverized gum arabic.
8 fl. oz. boiling water.
(c) 2 fl. oz. glycerine.
4 drops oil of cinnamon.

Dissolve each separately, then mix. This is a good article, and easy to prepare. It does not keep as well, however, as the borax mucilage, which is unalterable.

ANTISEPTIC PASTE (POISON)—FOR ORGANIC SPECIMENS.

- (a) 16 oz. wheat flour.
Beat to a batter with
16 fl. oz. cold water,
then pour into
32 fl. oz. boiling water.
(b) 2 oz. pulverized gum arabic.
Dissolve in
4 fl. oz. boiling water.
(c) 2 oz. pulverized alum.
Dissolve in
4 fl. oz. boiling water.
(d) 2 oz. acetate of lead.
Dissolve in
4 fl. oz. boiling water.
(e) 10 grains corrosive sublimate.

Mix (a) and (b) while hot, and continue to simmer; the meanwhile stir in (c), and mix thoroughly, then add (d). Stir briskly, and empty in the dry corrosive sublimate. *This paste is very poisonous.* It is used for anatomical work, and for pasting organic tissue, labels on skeletons, etc.

GLUE PASTE—FOR CLOTH BOOKS, ETC.

- (a) 4 oz. white glue.
8 fl. oz. cold water.

Soak glue four hours in the cold water, then dissolve in a glue pot.

- (b) 4 oz. corn starch.
8 fl. oz. cold water.
Mix, and pour into
16 fl. oz. boiling water.

Mix (a) with (b), and gently heat for about ten minutes. If wanted elastic, add 4 fl. oz. glycerine.

THYMOL DEXTRINE—FOR LABELS ON GLASS.

- 8 oz. yellow dextrine.
10 grains thymol.
Dissolve in
18 fl. oz. cold or lukewarm water.

Boiling water should not be used with dextrine, as it impairs its adhesiveness.—*The Western Painter.*

Syrup hydriodic acid and peroxide hydrogen are incompatible, the former being decomposed by the latter, with a formation of free iodine, which is afterwards oxidized to iodic acid.

Cassia oil adulterated with resin and petroleum has made its appearance in the market.

The Examination of Creosote Capsules.

The necessity of examining the contents of the various ready-made capsules on the market has frequently been dwelt upon, and such examination very frequently shows very wide differences between the contents of the capsules and the statements as to the contents which appear on the labels. The following method of examining capsules containing creosote, which was recently suggested by Sapin, will, therefore, prove of considerable interest:

Macerate fifty of the capsules of examination for several hours in barely sufficient cold water to cover them, and then heat carefully until the gelatine is dissolved. On cooling there will be two layers, the upper being oily and the lower gelatinous. Dissolve the oily layer in 25 c.cm. of ether; again liquefy the gelatinous mass by careful heating and allow it to cool, when the last traces of the oily creosote solution will rise to the surface, and may be removed by a second portion of ether. By mixing the two ethereal solutions, evaporating and weighing the residue, the weight of the creosote present in the capsule and of the oil will be obtained. To separate these two, shake the residue twice with 10 c.cm. of alcohol (94 per cent.), which dissolves the creosote, while the oil remains behind. After pouring off the alcohol, heat the oil until the last traces of alcohol are driven off, and weigh it. The difference between the figures thus given and the total weight of the residue after the evaporation of the ether will give the quantity of the creosote present.

This method is available for analysis of creosote solutions in oil, such as cod-liver oil, almond oil, peanut oil, and olive oil. The quantity of creosote found may occasionally be a little in excess of the actual amount present, on account of the slight solubility in alcohol of some of the oils used.—*For. and Col. Importer.*

Migranin contains a certain proportion of antipyrin, and is for that reason physically incompatible with salol. The mixture of the two deliquesces.

TO SUCCESSFULLY TREAT BLACK EYE.—There have been recommended many applications, but an exchange informs us that there is nothing to compare with the tincture of a strong infusion of capsicum mixed with an equal bulk of mucilage and a few drops of glycerine. Paint with a camel's hair pencil and repeat the operation once or twice.

To write on glass two solutions are prepared: One a solution of 35 grammes of sodium fluoride and 7 grammes of potassium sulphate in 500 c.c. of water, and the other a solution of 14 grammes of zinc chloride in 500 c.c. of hydrochloric acid. When wanted, equal parts of the two are mixed and painted on glass by means of a camel's hair pencil.—*P.L.E.*

A Clear Crystal Glass

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Capacity : One-Half Gallon.

Containing the equivalent of five boxes of Pepsin Tutti Frutti. It is also packed with an assortment of half Pepsin and half regular Tutti Frutti. Order early from your wholesaler. Send postal card for new advertising signs for your window.

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The **Preserver**, used according to our directions, will stop all decay of the animal matter of the shell, and, at the same time, seals every pore of the shell, which will keep the yolk in the centre of egg, where it is always found in fresh eggs, as the air cannot escape, nor can it work in, and we guarantee the egg to be as fresh in one year as the day it was treated. It costs less than one cent per dozen to lay them down, and a child can do it; it requires no skill. **Preserver** will be appreciated by all your customers.



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Correspondents must in all cases send name and address, not necessarily for publication.

Editor CANADIAN DRUGGIST.

SIR,—Can you give a good method for accurately estimating the amount of tannic acid contained in different specimens of hemlock bark?

DRUGGIST.

Editor CANADIAN DRUGGIST.

SIR,—Having noticed lately several methods recommended for the restoration of "crooked emulsions," it may not be out of place to mention a very simple one which I used some years ago, and which proved so satisfactory that as long as I used the pestle and mortar for producing emulsification I took but little precaution to guard against the crocking. Press the crooked emulsion through a cotton cloth made into a bag; it will then immediately mix on stirring.

I use a modification of such an arrangement for the manufacture of emulsions on a comparatively large scale, which is an almost incredible saving of time and labor as compared with the old method.

H. H. GALTZ.

Red Deer, May 26, 1896.

Editor CANADIAN DRUGGIST.

SIR,—A paragraph is going the rounds of the medical journals, giving a formula for making Palatable Castor Oil.

This formula is patented as per following list of patents:

No. 410,940, dated September 10th, 1889.

No. 470,715, dated March 15th, 1892.

No. 470,714, dated March 15th, 1892.

No. 524,513 dated August 14th, 1894.

No. 524,514, dated August 14th, 1894.

If druggists are induced to prepare this article themselves, it will lead to a multitude of lawsuits like those instituted in the "Drive well" case.

Some scheming lawyer would like to take up this case for one-half the profits, and I think journals should warn the druggists so that they may not be caught in a trap.

A. J. WHITE.

New York, Jan. 4th.

Aristol is highly recommended in the treatment of burns. The parts should be dressed with the powder and then covered with absorbent cotton.

To destroy cholera germs a solution of citric acid in water, four parts in ten thousand is recommended.

A DIFFICULT REMEDY.—The sufferer: "Do you think it would relieve my toothache if I should hold a little liquor in my mouth?" His wife: "It might, if you could do it."—*Life*.

Books for Druggists.

Any of the following books will be mailed on receipt of the priced named:

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National Dispensatory.....	8 50
National Formulary.....	1 00
Atfield's Chemistry.....	3 25
Gray's Botany, first lessons.....	1 40
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Heebner's Practical Synopsis of B.P.....	1 00
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Quiz Compend on Pharmacy, Stew-art.....	1 00
Caspan's Treatise on Pharmacy.....	4 50
Coblenz's Handbook of Pharmacy.....	3 50
Druggists' Price Books.....	2 00
Standard Dictionary, Funk & Wagnalls, single volume.....	\$12 to 18 00
Standard Dictionary, in two volumes, according to binding.....	\$18 to 22 00
Art of Compounding, by Scoville.....	2 50
Bartley's Medical Chemistry.....	3 00
How to do Business (McLean).....	75
Sayre's Organic Materia Medica and Pharmacognosy.....	4 50
Practical Perfumery.....	50

CANADIAN DRUGGIST, Toronto.

A Chemist's Exhibition.

The second of the exhibitions in London, England, organized in connection with the *British and Colonial Druggist*, will be held from the 24th to the 28th August next, at the National Skating Palace, Argyll street, W.

For the exhibition of 1895 a larger attendance of the members of the trade was secured than had ever before assembled on any occasion. In four days it was visited by considerably over a thousand chemists, by large numbers of London and provincial wholesalers and manufacturers connected with pharmacy, by hundreds of medical men, and nearly a thou-

sand more, beside the general public.

The arrangements were obtained that result will this year be improved and amplified, and even a larger attendance of trade buyers can confidently be expected.

The National Skating Palace, in which the exhibition is to be held, is a commodious hall, very massively built in the form of a modern theatre. The ground floor affords a space of 135 feet by 95 feet available for exhibitors, while above this are two tiers also giving material space for exhibition purposes. The entire place will be well appointed, richly furnished, and decorated in a manner not usual in trade exhibitions.

The extensive refrigerating apparatus beneath the building, used for the manufacture of ice for skating, will be available, and the temperature in the building can be kept down to any degree desired.

Music will be supplied every afternoon and evening by a special orchestra.

Exhibition office, 42 Bishopgate Without, London, E.C. Communications to be addressed to the manager.

How to See Niagara Falls.

One of the best views of the cataract is obtained from the observation tower opposite Prospect Park, entrance to State Reservation, N.Y. Here is an unequalled panorama, embracing the magnificent landscape of river scenery and the falls, and the best view of the river and rapids is gained by a trip over the gorge route, the Niagara Falls and Lewiston railroad, American line. This splendidly-equipped electric line traverses the entire length of the Niagara gorge, on the American shore, close to the water's edge, from the Falls to Lewiston, passing many caves, rapids, battle grounds, and historic points. To see Niagara as it should be seen, cheaply, thoroughly, and quickly, the tourist should ascend the observation tower and later take a trip over one of the most complete electric routes in the world. The regular fare for tower and gorge road together is 75 cents, or the trip alone 60 cents. Trains run every ten minutes. See advertisement.

THE DIE.—The *Sheffield Quarterly Medical Journal* gives the following: It is not always good to be too curious, especially if you happen to be a hospital patient. One such was greatly concerned about what the physician wrote on the card at the top of his bed. While the nurse was not watching he took down the card, and immediately set up a holla-balloo, groaning and sobbing in a dreadful manner. The nurse came and asked him what was the matter. "Oh, dear! oh, dear," was the response, "I've got to die!" "What is it? Do you feel worse?" asked the nurse in tender tones. "No, not particular, ma'am; but I've got to die; the doctor has wrote it on my ticket." The poor man had so interpreted "ter die," and it was difficult to calm his fears.

The Science of Optics.

BY LIONEL LAURANCE,
Principal of the Optical Institute of Canada.

[Entered according to Act of Parliament of Canada, in the year 1896, by Lionel Laurance, at the Department of Agriculture.]

Emmetropia.

(Em—In. Metron—Measure. Ops—Eye.)

The emmetropic eye—the eye in measure—is one that receives on and around the macula a clear inverted image formed by parallel rays of light, the accommodation being at rest.

An eye is said to be emmetropic when the retina is situated just at the principal focal distance of its refracting system; thus its dioptric power is in such harmony with its axial length that parallel rays of light are brought to a focus at the retina. An eye shorter than the normal, but with greater refractive power, or one that is longer, but with less refraction, may also be emmetropic, provided that the refracting power be in harmony with the axial length, so that the focus of parallel rays lies at the retina when the accommodation is suspended.

To illustrate an emmetropic eye take a +20D, and hold it at a distance of two inches from a screen when parallel rays of light from a window, candle, or lamp will form a sharp, inverted image on the screen. The dioptric system is represented by the refracting lens, and it is in harmony with the distance between the lens and the screen, which represents the distance between the cornea and the retina. When there is not harmony between the dioptric system and the axial length the former will be too strong or too weak for the latter, or the latter will be too long or too short for the former; this constitutes ametropia—(eye out of measure).

When the dioptric system is too strong while the axial length is normal, parallel rays of light, being refracted, will come to a focus before they reach the retina, and instead of a sharp image there will be circles of diffusion. This can be illustrated by adding another convex lens to the +20D. Or if the axial length be too great while the refracting media are normal, then the parallel rays will also come to a focus before reaching the retina, illustrated by moving the +20D lens from 2 inches to 2½ inches. In both these cases, however, the effect is due to the refracting power being too great relatively to the distance between the cornea and retina, for if the eye were longer, but with a proportionately decreased refractive power, the condition would be that of emmetropia.

When the refractive media are too weak, the axial length being normal, parallel rays of light will impinge upon the retina before coming to a focus; illustrated by adding to the +20D lens a — lens which will decrease the refractive power, and instead of a sharp image, circles of diffusion will be seen on the screen. Or, if the axial

length be too short while the dioptric system is normal, the same occurs; the parallel rays impinge upon the retina before coming to a focus, illustrated by moving the +20D lens from 2 inches to 1½ inches. In both these cases also the refraction is deficient in relation to the length of the globe, for if the eye were shorter, but with a proportionately increased refractive power, the condition would be that of emmetropia.

The emmetropic eye is 23.50 millimetres from the cornea to the back of the sclerotic. From the cornea to the retina it is 22.231 millimetres or .9 inch. This is the length of the visual line. Its focal length must be calculated from a point in the aqueous (the principal point), from which point to the retina is nearly 20 millimetres or .8 inch. The refractive power necessary to bring parallel rays of light to a focus at that distance is about 50D. The length of the globe varies in errors of refraction, the extremes known being say from ¾ inch to 1¼ inches.

In discussing the eye and its defects of shape and refractive power I shall take .9 inch as the normal axial length and 50D as the normal refractive power. These figures are not mathematically correct (see the diagrammatic eye), but they are sufficiently so to serve as a basis of calculation.

The refractive power is obtained from the cornea, the aqueous, the crystalline, and the vitreous. The first and principal refracting medium is the cornea, the anterior surface of which has a refractive power of 31D; the refractive power of the crystalline by itself is 23D when that humor is at rest (not accommodated). This refracting power of the crystalline is equivalent to a + spherical lens of 11D placed in front of the eye. The dioptric media of the eye, although complex, can be well considered as a strong convex lens.

But the eye is not only a lens, it is also a camera, and can be compared to a photographic apparatus.

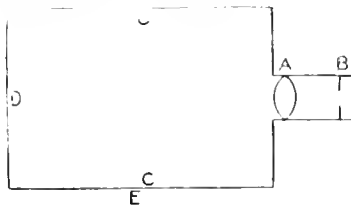


Fig. 28.

Figure 28 is a photographic camera, and Figure 29 is the human eye.

In the camera the refractive media are the lens and the air that fills the box, and in the eye the cornea and the humors are the refracting media.

A, the lens in both figures, is employed for the adjustment of the focus of diver-

gent rays. In the camera this is done by sliding it forward without increasing its convexity; in the eye by increasing its convexity without practically altering its position; both serve the same purpose of bringing divergent rays to a focus at the back of the instrument.

B, the diaphragm in the camera, the iris in the eye regulates the quantity of light admitted, and cuts off the peripheral rays.

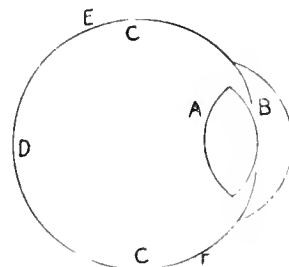


Fig. 29.

CC, the black coating of the camera, the choroid of the eye absorbs excessive and stray rays of light, which, if reflected within the apparatus, would confuse the image.

DD, the frosted glass of the camera, the retina of the eye receives the inverted picture.

EE, the box of the camera, the sclerotic of the eye keeps the whole apparatus in its place and form.

The power of an eye to see depends on a clear image being formed on and around the macula and on this impression being conveyed to the brain. It is disturbed:

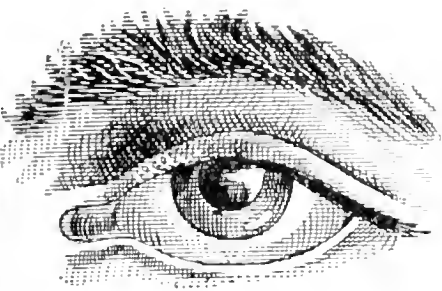
(1) If the retina or optic nerve fails to convey the impression of the rays to the brain.

(2) If there be any opacities or obscurities which prevent the rays from entering and passing through the eye freely.

(3) If the refraction, accommodation, or convergence be abnormal, so that the rays of light cannot form a sharply defined image on the rods and cones at the macula.

The first two classes of disturbance belong to ophthalmology, and require medical or surgical treatment; the third belongs to the domain of the optician, and it is of these defects I have to treat.

An object is seen in its natural position, upright, although the retinal picture is inverted. The rays of light that impinge on the retina cause nervous stimulations that are conveyed to the brain which refers the impressions back in the same direction as they came, making the mental picture formed of these impressions at the points of origin of the rays, so that generally the mental picture exactly coincides with the object itself. This, however, is not of necessity, as if the rays be deviated before they enter the eye the mental picture is according to the deviated, and not according to the original rays; thus an object is seen in a false position through a prism, magnified by a convex, diminished by a concave lens, or in a different direction if the rays be reflected as by a mirror. For



To the Trade

AFTER several years of satisfactory services and gratifying results therefrom, we have to announce the resignation of Mr. Lionel Laurance as Instructor for the Institute. The phenomenal success of this Institute in the past warrants us in continuing its good work, both in the interests of our patrons and of the general public. We have therefore sought and secured at much expense as Instructor one who has won a first place as teacher of the Science of Optics, which ranks the Optical Institute of Canada second to none on this continent. We refer to W. E. Hamill, M.D., Principal of the Ontario Optical Institute, thus practically amalgamating the two Institutes.

A familiarity with optics is not difficult to acquire when a teacher has the faculty of imparting his knowledge, and Dr. Hamill possesses this ability in so marked a degree that what is apparently a dry and difficult subject becomes at once both interesting and fascinating, as any former student will testify.

After many years' experience in optics, and with every desire to be of service to you, we emphatically declare that you are wasting both time and money should you seek a knowledge of this subject elsewhere than under the efficient tuition presented by us to you.

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We have said sufficient to direct your attention to this important subject, and should you wish for further information, or to secure a seat in any of the coming classes, you can address

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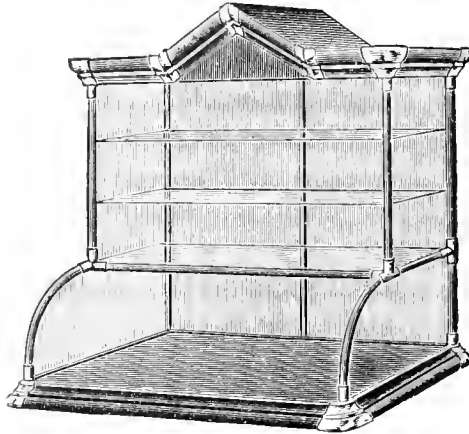
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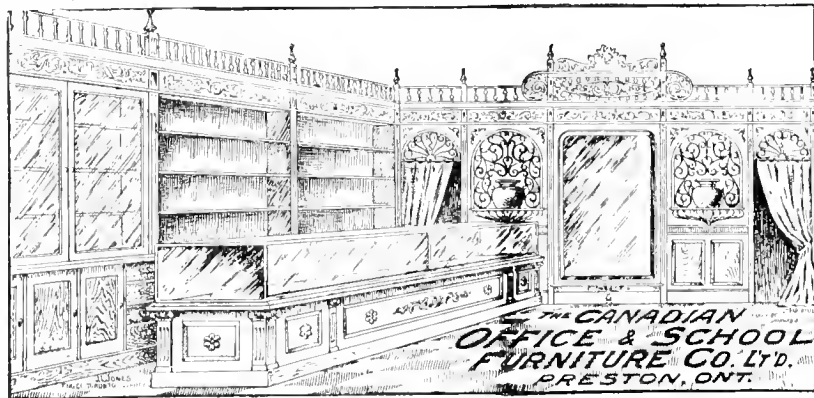


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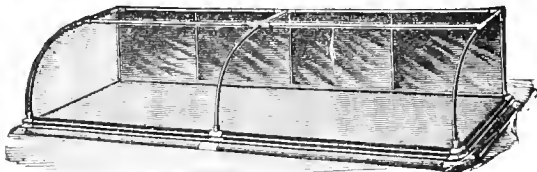
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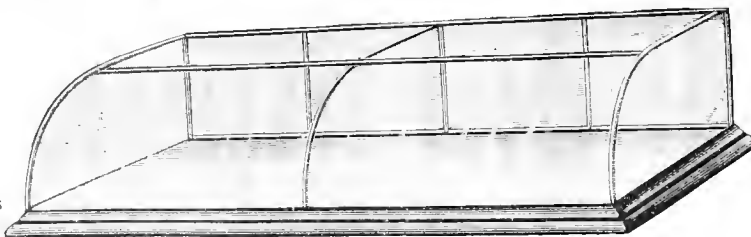
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Deafness	after all else	Head Noises
Deafness	had failed.	Head Noises
Deafness	Why	Head Noises
Deafness	remain deaf	Head Noises
Deafness	when a	Head Noises
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Deafness	awaits you?	Head Noises
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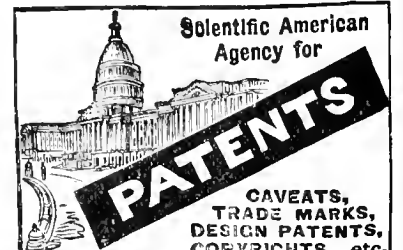
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more on this subject I refer you to the chapter on "The Sense of Sight."

It is said that all children are born far-sighted, so this defect may be considered as want of development of the eye; some of them remain far-sighted, some become normal, and others pass on to short-sightedness, so that this latter may be considered an over-development of the eye. Of the total of any population the proportion of abnormal eyes is surprisingly great; some authorities say 80 per cent., others quote as high as 95 per cent. Anyhow, those people who have normal eyes are very hard to find, and, in fact, an absolutely mathematically perfect eye is perhaps almost impossible.

An object may be considered as a mass of luminous points from each of which a pencil of light diverges to the eye; each pencil forms a cone, of which the point of origin is the apex and the cornea the base. Its axis is the central ray of the cone, and it is not refracted because it is perpendicular to the surface of the cornea at its point of contact. All the other rays of each cone, being refracted, are again brought to a point on the retina. An image may be considered as a series of foci of the rays from the series of points on the object.

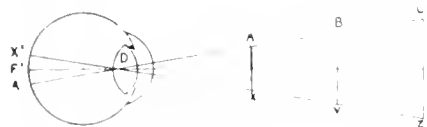


Fig. 30.

In Fig. 30, the eye being emmetropic, parallel rays from the object *AX* fall on the cornea, and being refracted by the dioptric media form a sharp inverted picture, *X'A'*, on the retina. The principal axial ray *FF'* is not refracted, and the secondary axial rays, *AA'*, *XX'*, pass through also without any or with very little refraction, crossing the principal axis at the nodal point *D*. The size of the inverted retinal picture *X'A'* depends on the angle subtended at the nodal point *D* by the rays *AA'* and *XX'*, from the extremities of the object *AX* after they cross each other at *D*, and this again depends on the angle under which they enter the eye.

It will be noted that *AX* at, say, 20 ft., *BY* at, say, 60 ft., and *CZ* at, say, 200 ft., all form the same sized retinal picture *X'A'*, and only habit and education cause us to know whether it be a smaller object at a shorter distance or a larger one at a greater distance than is seen. The retinal image of a certain object is not of the same dimension in every eye, as the longer the distance from the crystalline to the retina the greater will be the space occupied by it. Comparative size of objects, however, is the same in all eyes. (See chapter on "Sense of Sight.")

The P.R.—*Punctum Remotum*—far point of vision, is the very greatest distance at which the eye can see, and in the emmetropic eye it is at infinity (symbol ∞). The rays of light from the most

distant star can enter an eye and be brought to a focus on the retina, and therefore infinity, which means a distance without limit, is the farthest point of vision (symbol ∞) of the emmetropic eye. As the divergence of light rays is so small when they proceed from very distant points to the pupil of the eye, they are considered parallel. If the source of the light be 20 ft. or further away the rays are considered to be parallel equally with those from one of the fixed stars. Therefore, in practical optics 20 feet is taken as ∞ , that distance being the nearest point from which rays incident to the eye are parallel, and it is the P.R. in emmetropia. Rays of light from points nearer than 20 ft. are divergent rays.

The P.P.—*Punctum Proximum*—near point—is the nearest point at which the reading of fine print can be effected. In the emmetropic eye it is at any distance between $2\frac{3}{4}$ and 8 in. according to age, it being nearer in youth and gradually receding to a greater distance. It is considered normal if at 8 in., the eye then being practically fully accommodated and changed from a 50D lens to one of 55D. The crystalline lens, which is the only part of the eye that will have altered its form, being changed from a 23D lens to a 28D.

At 20 ft. no accommodation is employed, because, the rays being parallel, the refraction of the eye (50D) suffices to bring them to a focus at the retina, the eye being entirely at rest. Some consider that the adjustment of the eye for parallel rays is achieved by an equilibrium between the radiate and sphincter fibres of the ciliary, both being always in a state of tension for vision near and far. I know of nothing to support this theory.

At any point nearer than 20 ft., say, 19 ft., the rays are divergent, and if they have to be focussed on the retina a small amount of accommodation must be employed. As the distance between the object seen and the eyes is decreased more and more accommodation must be exerted until the nearest point at which the eyes can be accommodated is reached. Therefore, accommodation is used for every distance lying between the P.R. (20 ft. in emmetropia) and the P.P., and this distance is called the range of accommodation.

The necessary dioptric change of the crystalline lens for seeing at the P.P. represents the greatest amount of accommodation that can be exerted, and is called the amplitude of accommodation.

As accommodation is a function dependent on the strength of the ciliary muscle and the flexibility of the crystalline lens, it is but natural to find that in old age it becomes weaker and more deficient; in fact the amplitude of accommodation is greatest at ten years of age, when the lens is possessed of extreme flexibility, and then commences to decrease gradually. This decrease is about equal in all eyes, whether emmetropic, hyperopic or myopic, and therefore the

amplitude of accommodation—that is, the amount that can be exerted—is practically the same, (or at least should be) no matter what the condition of the refraction in everyone's eyes according to age. This must not be confused with the range of accommodation, which varies considerably according to the refraction.

As the nearer the object is to the eye the more divergent are the rays, so also the nearer it is the more accommodation must be exerted in order to see it. Conversely, the more accommodation a person can exert the nearer he can bring a thing up close to the eyes and still see it, so the greater the amplitude of accommodation the shorter is the distance of the P.P. The following table gives the two at various ages:

Age Years	Accommodation in Diopters	Corresponding P.P. Distance in inches.	in Cm.
10	14.00	2 $\frac{3}{4}$	7.
15	12.00	3 $\frac{1}{4}$	8.50
20	10.00	4	10.
25	8.50	4 $\frac{3}{4}$	11.50
30	7.00	5 $\frac{1}{2}$	14.
35	5.50	7	18.
40	4.50	9	22.50
45	3.50	11	28.50
50	2.50	16	40.
55	1.75	22	60.
60	1.00	40	100.
65	.50	80	200.
70	.25	160	400.
75	Nil	∞	∞

The loss of the accommodative power is smaller when there is a lesser quantity to lose it from, so that the decrease in the five years between 10 and 15 is 2D, that between 65 and 70 is $1\frac{1}{2}$ D.

To know the amplitude is often necessary. It can be accurately determined by the following test. Place the reading card at a distance of, say, 16 in.—ordinary reading point—and, without allowing it or the head to be moved, find the very strongest convex and the very strongest concave lenses through which can be read the smallest line possible. The difference between the two numbers represents the amplitude of accommodation; because when the person reads the line with the strongest convex lenses his crystalline lens must have been flattened as much as possible; that is to say, he read without employing any accommodation; and when he reads through the strongest concave lenses he is exerting the utmost accommodation that he is capable of; and therefore the difference between the two lenses shows how much that is. If he reads with +2.50D and -2.50D he has an amplitude of 5D. Sometimes both lenses are concave, as -7D and -2D, then the amplitude is also 5D, or they may be both convex as +2D and +4D, the amplitude being 2D.

The small Cape marigold (*Tagetes Pinnatifida*) was dedicated to St. Swithin.

The habitat of oats is believed to have been the region north and west of the Alps.

Pharmacy in England.

The Annual Dinner of the Pharmaceutical Society—Dr. Symes on the Council—Extract of Malt with Petroleum Oil—Apenta, the New Hungarian Aperient Water—Antikamnia in England—A New Milk Sterilizer.

(By Our London Correspondent.)

The annual dinner of the Pharmaceutical Society is usually a notable function that arrives at the end of session and affords the friends an opportunity of saying all sorts of nice things about the society and its work. Since Mr. Carteighe has been at the helm there has been no lack of big-wigs, both in science and medicine, willing to grace the dinner with their presence and compliment the president and council on their progress towards perfection. It is rather a pity that the president does not care for music, as of late the dinners have distinctly suffered from the absence of dulcet notes to enliven the feast and act as an antidote to the soporific effects of certain after-dinner orations. A special blunder this year was perpetrated by engaging the Hotel Métropole for the wrong evening, and then when this was discovered it was found that a well-known hospital for diseases of the skin had secured the correct date. An effort was made to bribe the hospital to give way, by offering a donation of \$100 to their funds, but they declined. Hence the dinner this year took place in the King's Hall of the Holborn Restaurant. Another curious feature concerning this annual banquet is the number of stewards whose names are published beforehand, but who do not turn up on the evening. Of course, a certain number are really necessary, in order to guarantee the society against loss incurred by the invitation of guests. But why these gentlemen give in their names as stewards of a dinner they do not intend to taste would probably puzzle most people. Finally, before dismissing the dinner, let it be noted that, loyal pharmacists as we are, the toast of "The Queen" nearly escaped its usual accompaniment of the national anthem, and had it not been for the initiative of one of the guests, Mr. Coroner Hicks, it would certainly have escaped attention. Noticing the omission, however, he started the anthem himself, and the cue was promptly taken and due honor paid.

Dr. Symes has been re-elected to the council to fill the vacancy created by the retirement of Mr. N. H. Martin. Dr. Symes owes his title to a German Ph.D., and is head of the company, Symes & Company, Limited, of Liverpool. He is a man of considerable talent, energy, and determination, and, although hardly popular, is highly esteemed. His absence of tact and finesse is noticeable, but readily forgiven, as his genuine nature is known and allowance made for his dogged obstinacy. Of late he has taken up with a passing fad, an association that was to deal more with trade affairs than the society has ever cared to do, but as this scheme is *in nubes* he has probably con-

cluded he can do more good in his place as councillor. It is generally believed that he only left the council, as Mr. Martin has done, when he found that nothing could be done on the lines desired, and that Mr. Carteighe's influence was almost omnipotent. It is quite certain that he will again assert his independence and, although the additions to the council are too small to affect the general policy that has been pursued for some years now, he will not hesitate to lift his voice when the occasion arises.

Messrs. Howard Lloyd, of Leicester, are pushing a new specialty, evidently based on the lines of Angier's Emulsion. It is extract of malt with 33 per cent. of petroleum oil and the requisite proportion of hypophosphites. This petroleum oil is the paraffinum liquidum of the German Pharmacopœia, and the liquid petrolatum of the United States Pharmacopœia. It is odorless, tasteless, neutral, and white, and, if of equal therapeutic value, much superior to cod-liver oil in palatability. The same oil is run by a company, I believe, under the name of "terrol" and recommended for all purposes for which cod-liver oil is taken.

The Apollinaris Company are not satisfied with the removal of the well-known Hunyadi Janos water from their hands by its proprietor, Mr. Andreas Saxlehner. They have therefore introduced a new aperient water under the title of "Apenta." It is also a natural Hungarian aperient water, drawn from the Uj Hunyadi springs, situated in the neighborhood of Buda-Pesth. I have not yet seen an analysis published, but it would probably show great similarity to Hunyadi Janos in composition. It was stated some years ago that the original spring of Hunyadi Janos gave out, and that a fresh supply had to be obtained in the neighborhood. Whether this was so or not, I do not know, but several complaints have occurred since then as to the absence of the accustomed efficacy in the water. I remember hearing a well known physician soundly rate the representative of the Apollinaris Company, in my presence, concerning this alleged depreciation. The representative explained afterwards that the physician was more incensed at the company settling down in Stratford Place, all amongst the west-end physicians, than at any real or supposed alteration in the water. This leads me to a suggestion. There is no doubt that all natural mineral waters are liable to change, and surely our soda water people could invent a good palatable aperient water that would do much to replace the natural unpalatable article. No one goes nowadays to Seidlitz for the water; the portable powder has replaced the genuine article. But the drawback to a more general use of aperient waters is their nasty taste, and here the chemist mineral water ought to "strike it." Surely it would be no great task to evolve a compound containing the necessary medicinal salts in solution and the whole covered by orange or lemon so as

to be really palatable. I remember suggesting a combination of lemonade with a certain chalybeate water some years ago and now it is put up in siphons and regularly sold. It is an immense improvement on the old rusty, inky taste, and even children will take it without complaining. Aperient waters are admitted by medical men to be much superior to cathartics in cases of habitual constipation, and when taken regularly every morning on an empty stomach certainly assist the daily operating of the bowels.

Antikamnia is being pushed with considerable assiduity in England just now. The company have sent free samples, both of the powder and tablets, to every registered practitioner, which means some 35,000 doctors. There can be no question that in certain cases, such as neuralgia, sciatica, etc., this mixture affords considerable relief. It is a curious fact that some medical men resent this free sample business, and even take the trouble to notify senders that they need not send any more. But the average doctor is glad to get new preparations, and often gives them a trial, although perhaps more often than not they are consigned to the waste paper basket. There is one class of free samples that is always welcomed at the doctor's residence, and chemists should bear this in mind, and that is dietetic preparations. New extracts of beef, condensed peptonized milk, etc., are promptly tested and the merits discussed in the family circle. Nothing is so likely to appeal to the medical man as this form of free sample after it has been appreciated in his own home.

A new sterilizing saucepan for boiling milk has been invented by Mr. Aymard, a popular surgeon in one of the eastern counties. It consists of an outer iron saucepan containing the hot water, into which an inner saucepan fits perfectly tightly, and this milk container is supported on a cylinder that becomes full of steam so that the milk is surrounded on all sides by steam. As a result of this improved steam jacket arrangement, milk can be raised to a temperature of 200° F. in a few minutes, and maintained at that temperature for any length of time without boiling over, or forming a scum on the surface, or obtaining the disagreeable flavor of burnt milk. Mr. Aymard has excellent bacteriological opinions to support his dictum that five minutes at 200° F., when the whole liquid is uniformly at that temperature, is equivalent to any amount of boiling in the ordinary way. Since many diseases, such as tuberculosis, typhoid fever, etc., have been traced to the milk supply, medical men have strongly recommended that the suspicious fluid should be boiled. This is undoubtedly the best milk sterilizer yet suggested.

Boiling water kills the germs and animalculæ it contains, but leaves them in the water to putrefy, and should, therefore, be filtered as well as boiled.

JOSEPH E. SEAGRAM

Waterloo, Ontario.

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This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis, and all diseases of the Chest.

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Sold by all first-class Chemists and Druggists

The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

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For the hair.

DENTAL PEARLINE

An excellent antiseptic tooth wash.

SULPHUR PASTILLES

For burning in diphtheritic cases.

SAPONACEOUS DENTIFRICE

An excellent antiseptic dentifrice.

These Specialties

All of which have been well advertised,
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houses at Manufacturer's price.

HENRY R. GRAY

ESTABLISHED 1859.

Pharmaceutical Chemist

22 St. Lawrence Main Street

(Cor. of LaGauchetiere)

MONTREAL

Formulary.

EFFECTIVE DEPILATORY.

Sulphide of barium.....	1 part
Lime (freshly burnt and slacked).....	1 "
Rice starch.....	2 "
Salicylic acid.....	q.s.
Glycerine.....	q.s.
Eau de Cologne, or spirit of wine.....	q.s.

Mix the first three ingredients intimately, then make into a thinnish paste with the spirit in which has previously been dissolved about 1 per cent. of acid salicylic, and 3 per cent. of glycerine. Apply to the part where required, and allow it to remain until a slight soreness is felt, then remove. Repeat application daily until the hairs are removed.—*Magazine of Pharmacy*.

CANTHARIDIN OIL.

Cantharidin.....	1 grain
Acetone.....	1 dram
Cotton-seed oil.....	2 ounces.

Dissolve the cantharidin in the acetone and add the oil.

NEW TOOTH-POWDER AND PASTE.

Professor Metral, of Geneva, Switzerland, recommends the following tooth powder:

Strontium carbonate.....	15 gm.
Purified sulphur.....	15 gm.
Attar of rose.....	6 drops.

Mix.

For those who prefer a paste, the professor suggests this formula:

Strontium carbonate.....	12 gm.
Sulphur purified.....	6 gm.
Castile soap.....	27 gm.
Oil of rose.....	12 drops.
Glycerin, sufficient.....	
Mucilage of gum arabic, sufficient.....	

Mix and make a paste.—*National Druggist*.

CONSUMPTION REMEDY.

Creosote.....	$\frac{1}{2}$ oz.
Chloroform.....	$\frac{1}{4}$ oz.
Oil of wintergreen.....	$\frac{1}{8}$ dr.
Oil of peppermint.....	$\frac{1}{2}$ dr.

Mix well and add—

Glycerine.....	8 oz.
Syrup of Virginian prunes.....	4 oz.
Rectified spirit.....	8 oz.
Water.....	4 pints.

One teaspoonful of Scotch whisky and an ounce of water four times daily after food.—*British and Colonial Druggist*.

LIQUID GLUE.

Fish glue.....	100
Acetic acid.....	125
Gelatin.....	20
Water.....	125
Shellac varnish.....	20

Dissolve the fish glue in the acid, the gelatine in the water, mix the solutions, and then gradually incorporate the varnish.—*Sudd. Apoth. Zeit.*

FRECKLE REMOVER.

A correspondent of the *Druggisten Zeitung* recommends the following as a certain remedy for freckles:

Nitric acid dilute.....	7 gm.
Eau de cologne.....	115 gm.
Neoli oil.....	10 drops.
Peroxide of hydrogen.....	60 gm.
Glycerin.....	100 gm.
Cochineal solution.....	3.5 gm.
Distilled water.....	30 gm.

Mix the first three ingredients, and to the mixture add the rest in the order in which they occur. Let stand 14 days and filter. Use after washing the skin, applying on a linen rag, and let dry on.—*Nat. Druggist*.

TOILET CREAM, WITCH-HAZEL.

Take of

Hydrous wool fat.....	4 ounces.
Petrolatum.....	12 "
Glycerine.....	6 "
Distilled extract witch-hazel.....	3 "
Boroglyceride, 50 per cent. solution.....	2 "

Mix the hydrous wool fat and petrolatum; add the glycerine and boroglyceride; lastly, add the extract of witch-hazel. Perfume with oil of lavender, or as pleasure. This makes an excellent toilet cream.

INSECT BITES.

The following new remedy has been sent from Accra, on the Gold Coast, to an English journal:

R. Liquor of ammonia.....	2½ dr.
Collodion.....	50 m.
Salicylic acid.....	5 gr.

Mix.

CALISAYA TONIC.

Chinchona, Loxa.....	g. 100
Bitter-orange peel.....	" 100
Wild cherry bark.....	" 15
Cinnamon.....	" 10
Calamus.....	" 4
Syrup.....	cc. 750
Alcohol.....	
Water, of each sufficient to make.....	" 2,250

Reduce the solids to a No. 30 powder, and percolate with a menstruum consisting of 2 volumes of alcohol and 1 of water.

PATENT LEATHER VARNISH.

A varnish that will not peel off or crack from the leather is a desideratum, and one that should sell through chemists, and bear a good profit. Such a one is, according to the *Trade Recorder*, to be made from the following formula:

Rosin, black.....	7½ ounces.
Venice turpentine.....	7½ "
Oil of turpentine.....	7½ "
Sandarach.....	15 "
Shellac.....	1 lb. 14 "
Alcohol.....	11½ pints.
Lampblack.....	4 ounces.

Digest the rosin, turpentine, sandarach, shellac, and alcohol together, afterwards add the lampblack, and well mix. Apply with a soft brush.—*Magazine of Pharmacy*.

ANTI-THYROID CIGARETTES.

Dried leaves of belladonna, 50 parts; hyoseyamus, 20 parts; stramonium, 30 parts; tobacco, 40 parts; jaborandi, 10 parts; sage, 20 parts; and water drop wort (*Phellodendrium aquaticum*), 12 parts. Cut fine, sift to remove dust, moisten with 40 parts of cherry laurel water well distributed, and then make into cigarettes of the usual size. One should be used before and after each attack, the smoke being deeply inhaled.—*Pharmaceutical Journal*.

SYRUP OF PHOSPHATE OF IRON AND CALCIUM.

Dr. Siboni, in the *Bollettin Chimico Farmaceutico*, gives the following directions for making this preparation:

Iron filings (containing not less than 98 per cent. of pure iron).....	2.20 grammes.
Phosphoric acid (sig. 1.350).....	42.00 "
Calcium phosphate, neutral.....	14.60 "
Sugar.....	250.00 "
Glycerine.....	50.00 "
Oil of lemon.....	5.00 "
Distilled water, sufficient to make.....	1,000 c.cm.

Put the iron into a mattress of the capacity of 1 litre, and to it add the phosphoric acid, diluted with an equal amount of distilled water, and let stand until the evolution of hydrogen has ceased. To accelerate the process, the vessel may be set in water heated to about 70° C. (158° F.). To the calcium phosphate, which should be powdered, add 200 c.cm. distilled water, stir, and pour into the vessel containing the iron. When the phosphate is dissolved, add the sugar, glycerine, and oil of lemon.—*Magazine of Pharmacy*.

SOLUBLE BISMUTH PHOSPHATE.—This is prepared (*Pharm. Zeit.*) by fusing together bismuth oxide, sodium hydrate, and phosphoric acid. The compound contains 20 per cent. of bismuth oxide, and is soluble in two parts of water, although concentrated solutions are not permanent. The solution tastes slightly bitterish salty. This new compound has been given in doses of from 0.2 to 0.5 gram as an intestinal antiseptic, and in acute gastric and intestinal catarrh.

FOR SOFT CORNS.—Daily applications with a saturated aqueous solution of tannic acid is recommended as a famous and effective remedy.

POISONING BY CLOVE OIL.—A case is reported (*Deutsch. Med. Woch.*) where a grown person swallowed one ounce of oil of clove. Vomiting ensued immediately, while an intense burning sensation in the stomach was experienced. Then unconsciousness supervened, accompanied by cyanotic symptoms. This condition lasted several hours. Complete recovery occurred in two days. Eugenol was not discovered in the urine.

A perfect and permanent emulsion of creosote can be made by simply shaking it with milk.

Photographic Notes

A New Color Photography.*

Of the problem of color photography, which was as old as photography itself, three distinct solutions, said M. Lippmann, had been realized since the beginning of the century. In 1840, E. Becquerel converted the surface of a daguerrotype plate into the violet subchloride of silver, and by projecting on it the image of the solar spectrum and other objects obtained good colored impressions. The image, however, was not fixed in the photographic sense of the word, but was blotted out if the plate was exposed to daylight. The second method for color photography might be called the three-color method. It could give a very good approximation to the truth, and probably had a great future before it. It was an indirect method, because the colors were not generated by the action of light, but were supplied subsequently by the application of aniline dyes or other pigments. The third and latest was the interferential method, which he first published in 1891, and the latest results of which he was bringing forward. For obtaining colored photographs by this method only two conditions had to be fulfilled. There was wanted, first, a transparent, grainless, photographic film of any kind capable of giving a colorless fixed image by the usual means; and, second, a metallic mirror placed in immediate contact with the film during the time of exposure. A mirror was easily formed by means of mercury. The photographic plate being first enclosed in a camera slide, mercury was allowed to flow in behind it from a small reservoir connected with the slide by india-rubber tubing. The slide was then placed in the camera. After exposure the slide was removed from the camera, and the mercury reservoir lowered so as to allow the mercury to flow back to it. The plate was then taken out, developed, and fixed. When dry, and examined by reflected light, it appeared brilliantly colored. The sensitive film, which must be in contact with the metallic mirror, the glass of the plate being turned towards the objective, might be made either of chloride, iodide, or bromide of silver contained in a substratum either of albumen, collodion, or gelatine. The corresponding developers, acid or alkaline, must be applied, the fixing being by cyanide or bromide of potassium. Thus bright color photographs might be obtained without changing the processes of ordinary photography; the same films, developers, etc., were employed, and even the secondary operations of intensification and isochromatic action were made use of with full success. The presence of the mirror behind the film during exposure made the whole difference. From a chemical point of view nothing

was changed, the result being a uniform brownish deposit of reduced silver. And yet the presence of a mirror during exposure caused this deposit to show bright colors. The theory of these colors was discovered by Newton, who subjected them to measurement. He showed that when two parallel reflecting surfaces are separated by a very short interval and illuminated by white light, they reflect only one of the colored rays which are the constituents of white light. If a color photograph of the spectrum, and especially the violet end of the image, were examined, it would be found to consist of a deposit of brown reduced silver. In the case of an ordinary photograph this deposit would simply be a formless cloud of metallic particles. But in a color photograph the cloud had a definite, stratified form; it was divided into a number of equidistant strata parallel to the surface of the plate and 2-10,000th of a millimetre apart. These acted as the reflecting surfaces considered by Newton, and being at the proper distance for reflecting violet rays, only reflected violet rays. In the same way the other parts of the photograph were built-up strata with the proper intervals for reflecting the other colors of the spectrum. The appearance of color was therefore due to this regular structure, imprinted on the photographic plate. M. Lippmann proceeded to discuss the formation of this structure, and showed that by the presence of the mirror waves of light, which would otherwise have rushed through the film at enormous speed without leaving any permanent impression, were changed into standing waves—that is, waves surging up and down, each in a fixed place. Each of these waves impressed the sensitive film where it stood, producing one of the photographic strata referred to.

A number of photographs taken by this method were exhibited, in which the colors of stained glass and of natural objects, such as flowers and trees, were reproduced with wonderful brilliancy.—*British and Colonial Druggist.*

Advertising.

Practical Hints on Advertising.

Copyrighted, 1896, by CHARLES AUSTIN BATES, New York.

To those who realize the immense volume of advertising that has been done in past years it may seem to be an exaggeration when I say that I firmly believe that the advertising of America will be doubled in volume in the next five years. I am in a position to see the development and possibilities of advertising. Hardly a day passes when I am not in receipt of from one to half a dozen communications from people who have not advertised previously, or who have advertised only in a very perfunctory way. These people are thinking about the subject of adver-

tising—thinking about it seriously—giving it consideration which it has never been given before.

* * * *

There is not a business under the sun that cannot be advertised profitably. Every manufacturer can advertise profitably, if he will only find the way to do it. Every jobber can make his advertising profitable, if he will give the matter sufficient thought.

* * * *

The manufacturer wants the trade of the jobber; the jobber wants the trade of the retailer; and the retailer wants the trade of the consumer. It is necessary for each seller to bring himself and his wares to the attention of possible buyers. It must be done in some way, and by whatever means it is accomplished that means comes under the general head of advertising.

* * * *

The travelling salesman is in some measure an advertisement. A personal letter or a personal interview is an advertisement. An impersonal circular, or catalogue, or notice in the newspapers is an advertisement. Anything that gets the attention of possible buyers is advertising.

* * * *

As more thought is devoted to the subject, more ways of accomplishing this end are developed. The newspaper is not good for everybody. The magazines are not good for everybody. Circulars are useless in some cases. Each man in business must study his own situation—or employ someone to study it for him—and decide which of the methods of advertising is best for him to pursue.

* * * *

Judicious advertising is bound to pay. There can be no possible doubt about this. It will pay in 1896 better than it has ever paid before, because general business will be better, and the general public is becoming more and more interested in advertising and advertisements. The man who begins advertising in 1896 will have a better chance for success than any one who has begun heretofore.

* * * *

The other day, after I had told a man I did not believe it would ever pay him to advertise in the catalogues of various wholesale druggists, he told me that from one of these catalogues came the greatest number of responses he ever had from an advertisement. It developed that this particular catalogue contained coupons which might be torn out, and mailed to advertisers, and that the particular advertisement in question offered to send a full-sized package of medicine free of charge if the recipient would pay the express charges. The responses came in very well, but they came from small dealers in insignificant and remote localities, so that the actual trade secured from the advertisement amounted to nothing at all.

* From a lecture before the Royal Institution, by Mr. Gabriel Lippmann.



THE ALE AND PORTER



OF
John Labatt, London, Ont.

RECEIVED

MEDAL and HIGHEST POINTS

Awarded on this continent at the WORLD'S FAIR, CHICAGO, 1895.

MONTREAL P. L. N. Beaudry, 127 De-
Lorimier Avenue.

TORONTO J. Good & Co., Yonge Street.
ST. JOHN, N.B. F. Smith, 24 Water Street

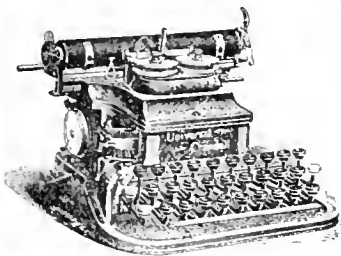
Fine Fruit Tablets



ENGLISH FORMULA TABLETS

Have been our specialty and have been a success. Packed in elegant Flint Glass Jars, large glass stopper, the finest package in the Dominion. Also in round jars, similar to English, but made two inches shorter to fit the ordinary shelf. A large variety. List of flavors and prices on application.

**G. J. HAMILTON
& SONS,
PICTOU, N.S.**



THE UNIVERSAL GRANDALL

NO. 3

Just Out

WRITING IN SIGHT.
INTERCHANGEABLE TYPE.
PERMANENT ALIGNMENT.

THE LATEST IMPROVEMENTS!
WHAT MORE CAN YOU ASK?

Write for catalogue.

THE GRANDALL MACHINE CO.
GROTON, N.Y.

A DRUGGIST'S SPECIALTY.

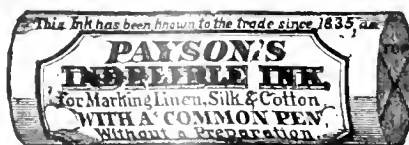
Curtis & Son's Yankee Brand Pure Spruce Gum

Is meeting with the success
its high qualities merit.

A TRIAL ORDER SOLICITED.

CURTIS & SON
PORTLAND, ME., U.S.A.

THE OLDEST - THE BEST



Trade supplied by leading Drug Houses in the
Union.

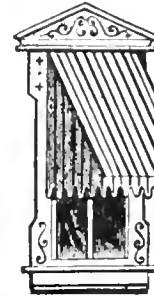
Levy & Co. Printers

Druggists' Labels,
Supplies, etc.

A. S. E. Y.

Toronto, Ont.

Awnings AND Window Shades



FOR
Houses, Offices,
AND STORES

Made by experienced workmen,
and of the best materials, at prices
as low as is consistent with good
work and materials.

ESTIMATES FURNISHED.

Wm. Bartlett,
16 Adelaide St. West,
TORONTO.

"St. AUGUSTINE"

Registered at Ottawa.

Our "St. Augustine" (Registered) is
the perfect wine for communion or invalids.
Your wine merchant can supply you at \$4.50
a case, one dozen quarts. See that you get
the genuine article. All good articles are
counterfeited. See that our name is on label
and capsule.

Our "St. Augustine" (Registered), of
1891 vintage, a choice sweet, mild wine,
and equal to imported wines at double the
price.

J. S. HAMILTON & CO.
BRANTFORD

Sole Agents for Canada for the Pelée Island Wine Company

BRAYLEY, SONS & CO.

Wholesale Patent Medicines

43 and 45 William Street, - MONTREAL.

OUR SPECIALTIES:

TURKISH DYES.

DR. WILSON'S HERBINE BITTERS.

Sole Proprietors of the following:

- Dow's Sturgeon Oil Liniment
- Gray's Anodyne Liniment
- Dr. Wilson's Antibilious Pills
- Dr. Wilson's Persian Salve
- Dr. Wilson's Itch Ointment
- Dr. Wilson's Sarsaparillian Elixir
- French Magnetic Oil
- Dr. Wilson's Worm Lozenges
- Dr. Wilson's Pulmonary Cherry Balsam
- Dr. Wilson's Cramp and Pain Reliever
- Dr. Wilson's Dead Shot Worm Sticks
- Nurse Wilson's Soothing Syrup
- Clark Derby's Condition Powders
- Wright's Vermifuge
- Robert's Eye Water
- Hurd's Hair Vitalizer
- Dr. Howard's Quinine Wine
- Dr. Howard's Beef, Iron and Wine
- Strong's Summer Cure
- Dr. Howard's Cod Liver Oil Emulsion

PROFIT FROM
100 to 200
PER CENT.

EVERY JOBBER
SELLS
TANGLEFOOT.



REGULAR

ONE BOX, 45 cents.
ONE CASE, \$4.00.
(10 Boxes)
FIVE CASES, \$3.75.

"LITTLE"

ONE BOX, 18 cents.
ONE CASE, \$2.10.
(15 Boxes)
Size, 5 1/4 x 9 inches.

..TANGLEFOOT..

SEALED

STICKY FLY PAPER.

The Difference....

Some Leaks at the Edges.
Some Soaks Through the Paper.
Some Dries After Short Exposure.
Some Tears Easily in Opening.
Some Spoils over Winter.
Some Allows Flies to Escape.

TANGLEFOOT
DOES NOT!

HOLDERS are no longer packed with TANGLEFOOT, but are put up separately in boxes of fifty, which job for \$1.00.

Now, I know that the only kind of advertising that is good is the kind that sells goods. It doesn't make any difference how much comment the ad excites. If it does not bring profitable returns, it isn't as good as it ought to be. I mean this in a general way, of course. The single advertisement may frequently fail in bringing profitable returns, but if the entire advertising isn't effective something is decidedly wrong.

* * *

An advertisement that merely gets inquiries and doesn't get business, doesn't amount to much. It is comparatively easy to construct an advertisement that will bring inquiries of some kind. This is particularly true if you have something free to offer.

* * *

There are a great number of people in America who simply lie in wait for advertisements headed "Free." No matter what the thing is, they will send for it. There is a mild sort of excitement about it. There is a speculative element. They send six cents in stamps for something they never heard of, and then watch the post office for results. Children in the country often find much amusement in this sort of thing.

* * *

The advertiser who measures his results by the number of inquiries he receives, rather than by the actual sale of goods, is sure to waste his money. Inquiries are all right if they come from the right sort of people. I believe that few of the right sort of people are influenced by cute advertising.

* * *

There are more people convinced by straight talk and common sense than by humor or eccentricity. Something smart and cute may occasionally make a hit—that is, it may occasionally cause a great deal of comment, and may possibly result in some sales, but the only kind of advertising that is permanently and continuously profitable is the common sense kind that tells a plain story in a plain way. You can bet on that and you can't bet on the other kind. Common sense advertising will succeed ninety-nine times where novelty will succeed once.

* * *

An offensive ad narrows the field of the advertiser. He loses absolutely those to whom the ad does give offence, and his constituency is reduced to the comparatively small number whom the expression happens to strike very hard.

* * *

Perhaps those who are offended may be very foolish for taking offence, but that doesn't make the advertisement any better. It doesn't make any difference whether people are foolish or not so long as they buy the advertiser's goods.

The New System.

The following druggists have been prompt in adopting the newest and best method of encouraging a cash trade in their stores. Each cash customer receives a printed rebate check issued by the latest National Cash Register. The check is dated, the amount of the purchase printed on it, with a request like this: "Return \$5 in checks and get 25 cents in trade." The register prints a detailed list of the sales as well as giving the day's total sales. Also keeps accurate account of all charges, collections, and disbursements, and so prevents many mistakes. When may we add your name to the list?

H. F. McCarthy, Ottawa.

C. H. Couen, Toronto.

D. M. Waters, Belleville.

W. S. Detlor, Napanee.

R. S. Shilington, Ottawa.

Dickson Drug Co., Jas. Findlay, Pembroke.

John T. Wait, Arnprior.

Jos. Clark, H. H. Hough, Renfrew.

W. H. Medley, Kingston.

M. Patterson, Almonte.

W. G. Smith, Guelph.

R. B. W. Robinson, Ottawa.

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the special consideration of the Business Notices.

Your neighbors, the butcher, the baker, the confectioner, the restaurant keeper, all buy Tanglefoot by the box. Do you sell it to them?

The Julius King Optical Co., of New York, complain of the infringement of their trade marks by imitators of their goods, and express their determination to prosecute all offenders.

James N. North, manager for James W. Tufts, Boston, with his family is taking a much needed rest in Europe. The party is now in Italy, and will visit France and Switzerland before their return home, which will be about July 1st.

Archdale Wilson & Co., of Hamilton, have entered an action against the Lyman Bros. Co., Toronto, for infringement of their Fly Pad Trade Mark, and for an injunction to restrain the Lyman Bros. Co. from imitating their fly pads, boxes, labels, and envelopes.

We would call the attention of those on the lookout for a desirable location for a drug store to the advertisement of the stand in the Masonic Temple, London.

We happen to be personally conversant with the building and the locality, and, from its topography and the advantages set forth in the advertisement, there is very little doubt that it is a good site.

Any person looking for an opening will do well to look into this one, and, as such openings are very few, it would be desirable to act promptly.

Paper Boxes etc.

The Elliott Paper Box Co., 122 Adelaide street west, Toronto, manufacture full lines of paper boxes, cartons, folding boxes, drug labels, etc., and solicit orders from the trade. Estimates will be furnished on application.

Sponges.

Messrs. Saunders & Evans, 34 Church street, Toronto, advertise in this issue a choice selection of sponges. They claim to be the only house in Canada importing sponges direct from the fisheries in the Bahamas and elsewhere, and, as they confine themselves almost entirely to this line of goods, are able to offer them at low prices. Read their advertisement.

Acetic Acid.

During the past year I have made a number of analyses of the acetic acid manufactured and sold by Peuchen & Co., 10 Bay street, Toronto, with a view to ascertaining its strength and purity. On finding present no mineral acids, no metallic adulterations, or rather impurities, and no organic matters in the least degree objectionable, all of which, coupled with the fact of having had ample opportunities of judging of its harmlessness when used medicinally, I feel in every way justified in giving this certificate vouching for its purity as a manufactured product.

A. R. PYNE, M.B.

Government Analyst.

Strongest Indorsement Ever Given any Remedy for the Cure of Complexion Blemishes.

UNITED STATES HEALTH REPORTS' OFFICIAL INDORSEMENT.

(From United States Health Reports of December 24th, 1895. Toilet Necessities.)

"Time and again have the United States Health Reports cautioned readers against complexion remedies of unknown composition, and which have been shown by thorough chemical analysis to contain ingredients which do much harm.

"The desire on the part of those suffering from physical defects of the face and form, or from the hundred and one things which mar personal appearance, to obtain relief and something that will give them equal advantage with their more fortunate sisters in the way of securing the charms which hold and attract mankind, has resulted in the market being flooded with preparations which, claiming

much, furnish but little relief, and in a great majority of cases are positively harmful, and as such have received our just condemnation.

"In the light of what has been said, it is a matter of genuine satisfaction to the compilers of these reports to come upon a line of preparations which has been found by expert examination, conducted through our inquiry bureau, to be all, and more, than the individual representing the same claims for his specifics. Reference is had, particularly, to Dr. Campbell's Safe Arsenic Complexion Wafers and Fould's Medicated Arsenic Complexion Soap, now owned and offered to the public by Mr. H. B. Fould, of 214 6th avenue, New York.

"The above remedies are sold in all first class drug stores, and have stood the test for years, and are especially valuable for the complexion. They clear the skin, purify the blood, develop the form, and clear the complexion thoroughly; for rough skin and for expelling blackheads and pimples they are invaluable. They are put up in attractive forms, and have demonstrated to thousands of ladies who have tested the same that nothing better has ever been compounded for the purpose of beautifying the face and features.

"As a large proportion of our readers are found among ladies and in the home circle, this report is written in their interest, and not for the purpose of advertising these remedies, the reference to these superior articles being purely incidental,

but, inasmuch as we have satisfied ourselves of their worth, it is only a public duty to say as much in a report, based upon our honest and unbiased examination, made in pursuance of the object which sustains this publication.

"Both Dr. Campbell's Wafers and Fould's Arsenic Soap are toilet essentials of such superior character that it is a pleasure for the United States Health Reports to give them an editorial indorsement."

Dr. Campbell's Safe Arsenic Complexion Wafers and Fould's Medicated Arsenic Soap can be had at any first class drug store in the United States, Canada, and Great Britain. Also sent by mail on receipt of price. Wafers, per box, \$1; six large boxes, \$5. Soap, 50 cents per cake, or \$5 per dozen cakes.

Address all mail orders to the Lyman Bros. & Co., 71 Front street east, Toronto, Ont., Canada, and Lyman, Sons & Co., Montreal, Canadian agents.

Two in One.

The two organizations known as the Ontario Optical Institute and the Optical Institute of Canada have been amalgamated, and the new institute will be known as the Optical Institute of Canada, with quarters at 60 Yonge street, Toronto. This organization will be under the management of Mr. J. L. Leo, of Montreal, the classes being conducted by Dr. E. Hamill, whose knowledge of optics

HOW TO SEE

Niagara Falls!

The best views of the Great Cataract are obtained from

THE OBSERVATION TOWER

Opposite Prospect Park, Entrance to the State Reservation.

An unequalled panorama, embracing the magnificent landscape and river scenery of the Falls.

The Best View of the River and Rapids

is gained by a trip over

'The Gorge Route'

THE

Niagara Falls and Lewiston Railroad.

This splendidly equipped electric line traverses the entire length of the Niagara Gorge, on the American shore, close to the water's edge, from the Falls to Lewiston, passing many

Caves, Rapids, Battle Grounds, and Historic Points.

To see Niagara, as it should be seen, cheaply, thoroughly and quickly, the tourist should ascend the Observation Tower, and later take a trip over the most complete electric route in the world—

THE NIAGARA FALLS AND LEWISTON RY.

For Excursion Tickets, etc., address,

J. M. BRINKER,
President.

D. B. WORTHINGTON,
Gen. Pass. Agt.,
Buffalo, N.Y.



THE QUEEN PORTABLE FOUNT.

Patented May 1901, U.S.A.

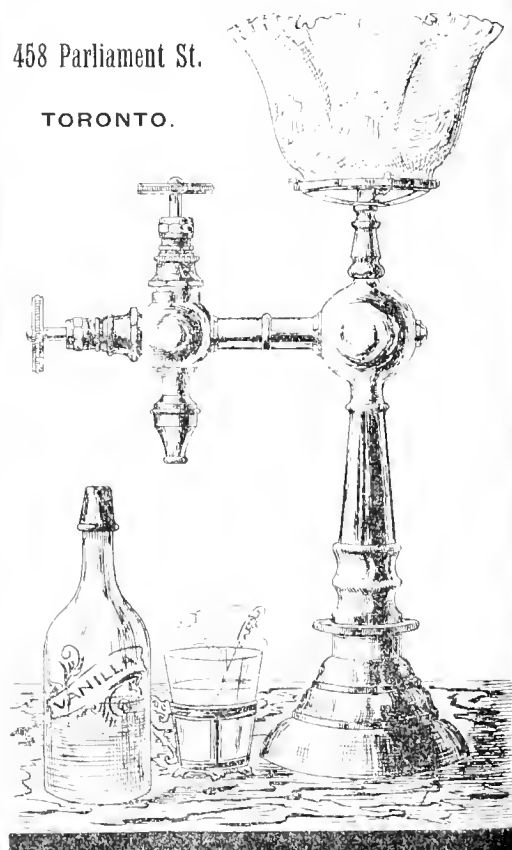
MR. TOUGOOD, of Prince Albert, writes: "As I have closed the season for the Fount, I thought I would write you a few lines and let you know how I panned out. My cash sale were \$263.00. The cost of my Fount and materials to run the drinks from it, \$160.00; therefore, I made Fount eleven and \$103.00 over and above all costs, or otherwise sixty five per cent. on my investment, or, in other words, \$103 and the Fount.

Soda Fountains and Supplies

Toronto, March 5th, 1906.
DEAR SIR,—The Fount I bought from you last year proved itself to be one of the best I have ever seen of its kind, gave the best of satisfaction, and I am sorry for one thing, which is that I did not buy one from you sooner. I can recommend your fountain to any one desiring such an article. I think your drawer system much better than the bottles. I am, yours respectfully,
JOHN Mc KAY,
305 YONGE STREET, TORONTO,
Chemist and Druggist.

458 Parliament St.

TORONTO.



CHEAP CYLINDER COUNTER FOUNT.

WITH GAS ATTACHMENTS

MR. S. L. HOWE, Chemist, Thornbury, Ontario, says: "I have the Fountain running in FIRST-CLASS ORDER, and doing well. The Generator works satisfactorily. I may say that everything is WORKING WELL and MOST SATISFACTORILY. I hope you may do well, and sell lots of fountains

Ave Maria

The latest Aristocratic, Fascinating Perfume is creating a furore in the hearts of American Society

Up-to-date Ideas in Perfumes Pay

SEND IN YOUR ORDER. EASILY SOLD.
SATISFACTION GUARANTEED

One Oz. Glass Str. Bottle, 2 in Box, \$4.80
" " Screw Top " 1 " " 5.00
Two " " " " 1 " " 8.00

NOT SOLD IN BULK

Send for Catalogue

Seely Manufacturing Co.

DETROIT, MICH.

WINDSOR, ONT.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to June 10th, 1896.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal.	\$4 37	\$4 05
Methyl.	1 90	2 00
ALISPOE, lb.	13	15
Powdered, lb.	15	17
ALOIN OZ.	40	45
ANODYNE, Hoffman's bot., lbs.	50	55
ARROWROOT, Bermuda, lb.	50	55
St. Vincent, lb.	15	18
BALAM, Fir, lb.	40	45
Copaiba, lb.	05	75
Peru, lb.	3 75	4 00
Tolu, can or less, lb.	05	1 00
BARK, Barbary, lb.	22	25
Bayberry, lb.	15	18
Blackthorn, lb.	15	17
Canella, lb.	15	17
Cascarilla, lb.	25	30
Cascarilla, select, lb.	18	20
Cassia, in mats, lb.	18	20
Cinchona, red, lb.	00	05
Powdered, lb.	05	70
Yellow, lb.	35	40
Pale, lb.	40	45
Elm, selected, lb.	18	20
Ground, lb.	17	20
Powdered, lb.	20	28
Headlock, crushed, lb.	18	20
Oak, white, crushed lb.	15	17
Orange peel, bitter, lb.	15	16
Prickly ash, lb.	35	40
Sassafras, lb.	15	10
Soap (quillay), lb.	13	15
Wild cherry, lb.	13	15
BEANS, Calicut, lb.	45	50
Tonka, lb.	1 50	2 75
Vanilla, lb.	8 00	8 50
BERRIES, Cubeb, sifted, lb.	30	35
powdered, lb.	35	40
Juniper, lb.	7	10
Ground, lb.	12	14
Prickly ash, lb.	40	45
BUDS, Balm of Gilead, lb.	55	60
Cassia, lb.	25	30
BUTTER, Cacao, lb.	75	80
CAMPHOR, lb.	05	75
CANTHARIDES, Russian, lb.	1 40	1 50
Powdered, lb.	1 50	1 60
CAPRICUM, lb.	25	30

Powdered, lb.	30	35
CARBON, Bisulphide, lb.	17	18
CARMINE, No. 40, oz.	40	50
CASTOR, Fibre, lb.	20 00	20 00
CHALK, French, powdered, lb.	10	12
Precip., see Calcium, lb.	10	12
Prepared, lb.	5	6
CHARCOAL, Animal, powd., lb.	4	5
Willow, powdered, lb.	20	25
CLOVE, lb.	16	17
Powdered, lb.	17	18
COCHINEAL, S.G., lb.	40	45
COLLOIDION, lb.	75	80
Cantharidal, lb.	2 50	2 75
CONFECTION, Senna, lb.	40	45
Creosote, Wood, lb.	2 00	2 50
CUTTLEFISH BONE, lb.	25	30
DEXTRINE, lb.	10	12
DOVER'S POWDER, lb.	1 50	1 60
ERGOL, Spanish, lb.	75	80
Powdered, lb.	90	1 00
Ergotin, Keith's, oz.	2 00	2 10
EXTRACT, Logwood, bulk, lb.	13	14
Pounds, lb.	14	17
FLOWERS, Arnica, lb.	15	20
Calendula, lb.	55	60
Chamomile, Roman, lb.	25	30
German, lb.	40	45
Elder, lb.	20	22
Lavender, lb.	12	15
Rose, red, French, lb.	1 00	2 00
Rosemary, lb.	25	30
Saffron, American, lb.	05	70
Spanish, Vala, lb.	1 00	1 25
GELATINE, Cooper's, lb.	75	80
French, white, lb.	35	40
GLYCERINE, lb.	22	25
GUARANANA, lb.	200	2 25
Powdered, lb.	2 25	2 50
GUM, Aloes, Cape, lb.	15	20
Barbadoes, lb.	50	50
Socotrine, lb.	05	70
Asafetida, lb.	40	45
Arabic, 1st, lb.	70	75
Powdered, lb.	80	95
Sifted sorts, lb.	45	50
Sorts, lb.	30	35
Benzoin, lb.	50	1 00
Catechu, Black, lb.	9	20
Gamboge, powdered, lb.	1 20	1 25
Guaiaac, lb.	50	1 00
Powdered, lb.	90	95
Kino, true, lb.	2 00	2 25

Myrrh, lb.	\$ 45	\$ 48
Powdered, lb.	55	60
Opium, lb.	5 50	60
Powdered, lb.	5 50	5 75
Scammony, pure Resin, lb.	12 50	13 00
Shellac, lb.	40	45
Bleached, lb.	45	50
Spruce, true, lb.	30	35
Tragacanth, flake, 1st, lb.	85	90
Powdered, lb.	1 10	1 25
Sorts, lb.	55	70
Thus, lb.	5	10
HERB, Althea, lb.	27	35
Bitterwort, lb.	30	40
Birdock, lb.	10	18
Boneset, ozs, lb.	15	17
Catnip, ozs, lb.	17	20
Chiretta, lb.	25	30
Colts-foot, lb.	20	35
Feverfew, ozs, lb.	55	55
Grindelia robusta, lb.	45	50
Horehound, ozs, lb.	18	20
Jaborandi, lb.	45	50
Lemon Balm, lb.	35	40
Liverwort, German, lb.	35	40
Lobelia, ozs, lb.	15	20
Motherwort, ozs, lb.	20	22
Mullein, German, lb.	17	20
Pennyroyal, ozs, lb.	18	20
Peppermint, ozs, lb.	21	22
Rue, ozs, lb.	20	35
Sage, ozs, lb.	18	20
Spearmint, lb.	21	25
Thyme, ozs, lb.	18	20
Tansy, ozs, lb.	15	18
Wormwood, ozs, lb.	20	22
Yerba Santa, lb.	35	44
HONEY, lb.	13	15
Hops, fresh, lb.	20	25
Indigo, Madras, lb.	75	80
INSIDE, POWDER, lb.	30	32
IRINGLOSS, Brazil, lb.	2 00	2 10
Russian, true, lb.	0 00	0 50
LEAF, Aconite, lb.	25	30
Bay, lb.	18	20
Belladonna, lb.	25	30
Buchu, long, lb.	50	55
Short, lb.	25	27
Coca, lb.	35	40
Digitalis, lb.	15	20
Eucalyptus, lb.	18	20
Hyoscyamus, lb.	20	25
Manco, lb.	70	75

Senna, Alexandria, lb.	\$ 25	\$ 30	Queen of the Meadow, lb.	\$ 18	\$ 20	Valerianate, oz.	\$ 55	\$ 60
Tinney, lb.	15	25	Rhatany, lb.	20	30	AMYL, Nitrite, oz.	16	18
Stramonium, lb.	20	25	Rhubarb, lb.	75	2 50	ANTINERVIN, oz.	85	00
Uva Ursi, lb.	15	18	Sarsaparilla, Hond, lb.	40	45	ANTIKAMNIA,	1 30	1 35
LEECHES, Swedish, doz.	1 00	1 10	Cut, lb.	50	55	ANTIPYRIN, oz.	1 10	1 20
LICORICE, Solazzi,	45	50	Senega, lb.	55	65	ARISTOL, oz.	1 85	2 00
Pignatelli,	35	40	Squill, lb.	13	15	ARSENIC, Donovan's sol., lb.	25	30
Grasso,	30	35	Stillingia, lb.	22	25	Fowler's sol., lb.	10	13
V & S—Sticks, 6 to 1 lb., per lb.	27	30	Powdered, lb.	25	27	Iodide, oz.	50	55
" Purity, 100 sticks in box	75	75	Unicorn, lb.	38	40	White, lb.	6	7
" Purity, 200 sticks in box	1 50	1 50	Valerian, English, lb. true.	20	25	ATROPINE, Sulp. in ½ ozs. 80c.,	6 00	6 25
" Acme Pellets, 5 lb. tins	2 00	2 00	Virginia, Snake, lb.	40	45	oz.	35	40
" Lozenges, 5 lb. tins.	2 00	2 00	Yellow Dock, lb.	15	18	Iodide, oz.	50	55
" Tar, Licorice, and Tolu,			RUM, Bay, gal.	2 50	2 75	Salicylate, oz.	20	25
5 lb. tins.	2 00	2 00	Essence, lb.	3 00	3 25	Subcarbonate, lb.	1 80	2 00
LUPULIN, oz.	30	35	SACCHARIN, oz.	1 25	1 50	Subnitrate, lb.	1 50	1 60
LYCOPodium, lb.	70	80	SEED, Anise, Italian, sifted, lb.	13	15	BORAX, lb.	7	8
MACE, lb.	1 20	1 25	Star, lb.	35	40	Powdered, lb.	8	9
MANNA, lb.	1 60	1 75	Burdock, lb.	30	35	BROMINE, oz.	8	13
Moss, Iceland, lb.	9	10	Canary, bag or less, lb.	5	6	CADMIUM, Bromide, oz.	20	25
Irish, lb.	12	13	Caraway, lb.	10	13	Iodide, oz.	45	50
MUSK, Tonquin, oz.	46 00	50 00	Cardamom, lb.	1 25	1 50	CAFFEINE, oz.	55	60
NUTGALLS, lb.	21	25	Celery,	25	30	Citrate, oz.	45	50
Powdered, lb.	25	30	Colchicum,	50	60	CALCIUM, Hypophosphite, lb.	1 50	1 60
NUTMEGS, lb.	1 00	1 10	Coriander, lb.	10	12	Iodide, oz.	95	1 00
NUX VOMICA, lb.	10	12	Cumin, lb.	15	20	Phosphate, precip., lb.	35	38
Powdered, lb.	25	27	Fennel, lb.	15	17	Sulphide, oz.	5	6
OAKUM, lb.	12	15	Fennel, lb.	7	9	CERIUM, Oxalate, oz.	10	12
OINTMENT, Merc., lb. ½ and ½.	70	75	Fennel, lb.	3½	4	CHINIDINE, oz.	15	18
Citrine, lb.	45	50	Ground, lb.	4	5	CHLORAL, Hydrate, lb.	1 25	1 30
PARALDEHYDE, oz.	20	22	Hemp, lb.	5	6	Croton,	75	80
PEPPER, black, lb.	12	13	Mustard, white, lb.	11	12	CHLOROFORM, lb.	60	1 00
Powdered, lb.	15	16	Pumpkin,	15	20	CINCHONINE, sulphate, oz.	25	30
PITCH, black, lb.	3	4	Quince, lb.	65	70	CINCHONIDINE, Sulp., oz.	15	20
Bergundy, true, lb.	10	12	Rape, lb.	8	9	COCAINE, Mur., oz.	5 50	6 50
PLASTER, Calcined, bbl. cash.	25	3 25	Strophanthus, oz.	50	55	CODEIA, ½ oz.	70	75
Adhesive, yd.	12	13	Worm, lb.	22	25	COLLODION, lb.	65	70
Belladonna, lb.	65	70	SEILIZ MIXTURE, lb.	25	30	COPPER, Sulph., (Blue Vitriol) lb.	6	7
Galbanum Comp., lb.	80	85	SOAP, Castile, Mottled, pure, lb.	10	12	Iodide, oz.	65	70
Lead, lb.	25	30	White, Cont's, lb.	15	16	COPPERAS, lb.	1	3
POPPY HEADS, per 100.	1 00	1 10	Powdered, lb.	25	40	DIURETIN, oz.	1 60	1 65
ROSIN, Common, lb.	2½	3	Green (Sapo Viridis), lb.	25	25	ETHER, Acetic, lb.	75	80
White, lb.	3½	4	SPERMACE, lb.	65	70	Sulphuric, lb.	40	50
RESORCIN, white, oz.	25	30	TURPENTINE, Chian, oz.	75	80	EXALGINE, oz.	1 00	1 10
ROCHELLE SALT, lb.	28	30	Venice, lb.	10	12	HYOSCYAMINE, Sulp., crystals, gr.	25	30
ROOT, Aconite, lb.	22	25	WAX, White, lb.	50	75	IODINE, lb.	4 75	5 50
Althea, cut, lb.	30	35	Yellow,	40	45	IODOFORM, lb.	6 00	7 00
Belladonna, lb.	25	30	WOOD, Guaiac, rasped.	5	6	IODOL, oz.	1 40	1 50
Blood, lb.	15	16	Quassia chips, lb.	10	12	IRON, by Hydrogen.	80	85
Bitter, lb.	27	30	Red Saunders, ground, lb.	5	6	Carbonate, Precip., lb.	15	16
Blackberry, lb.	15	18	Santal, ground, lb.	5	6	Sacch., lb.	30	35
Burdock, crushed, lb.	18	20				Chloride, lb.	45	55
Calamus, sliced, white, lb.	20	25				Sol., lb.	13	16
Canada Snake, lb.	30	35				Citrate, U.S.P., lb.	90	1 00
Cohosh, black, lb.	15	20				And Ammon., lb.	70	75
Colchicum, lb.	40	45				And Quinine, lb.	1 50	3 00
Columbo, lb.	20	22				Quin. and Stry., oz.	18	30
Powdered, lb.	25	30				And Strychnine, lb.	13	15
Coltsfoot, lb.	38	40				Dialyzed, Solution, lb.	50	55
Comfrey, crushed, lb.	20	25				Ferrocyanide, lb.	55	60
Curcuma, powdered, lb.	13	14				Hypophosphites, oz.	25	30
Dandelion, lb.	15	18				Iodide, oz.	40	45
Elecampane, lb.	15	20				Syrup, lb.	40	45
Galangal, lb.	15	18				Lactate, oz.	5	6
Gelsemium, lb.	22	25				Permanganate, solution, lb.	15	16
Gentian or Genitan, lb.	9	10				Phosphate scales, lb.	1 25	1 30
Ground, lb.	10	12				Sulphate, pure, lb.	7	9
Powdered, lb.	13	15				Exsiccated, lb.	8	10
Ginger, African, lb.	18	20				And Potass. Tartrate, lb.	80	85
Po., lb.	20	22				And Ammon Tartrate, lb.	80	85
Jamaica, blehd, lb.	27	30				LEAD, Acetate, white, lb.	13	15
Po., lb.	30	35				Carbonate, lb.	7	8
Ginseng, lb.	4 50	4 75				Iodide, oz.	35	40
Golden Seal, lb.	75	80				Red, lb.	7	9
Gold Thread, lb.	90	95				LIME, Chlorinated, bulk, lb.	4	5
Hellebore, white, powd., lb.	12	15				In packages, lb.	6	7
Indian Hemp.	18	20				LITHIUM, Bromide, oz.	30	35
Ipecac, lb.	1 75	2 00				Carbonate, oz.	30	35
Powdered, lb.	2 00	2 25				Citrate, oz.	25	30
Jalap, lb.	55	60				Iodide, oz.	50	55
Powdered, lb.	60	65				Salic ate, oz.	35	40
Kava Kava, lb.	40	90				MAGNESIUM, Calc., lb.	55	60
Licorice, lb.	12	15				Carbonate, lb.	18	20
Powdered, lb.	13	15				Citrate, gran., lb.	35	40
Mandrake, lb.	13	18				Sulph. (Epsom salt), lb.	1½	3
Masterwort, lb.	16	40				MANGANESE, Black Oxide, lb.	5	7
Orris, Florentine, lb.	30	35				MENIOL, oz.	55	66
Powdered, lb.	40	45				MERCURY, lb.	75	80
Pereira Brava, true, lb.	40	45				Ammon (White Precip.),	1 25	1 30
Pink, lb.	40	45				Chloride, Corrosive, lb.	85	90
Parsley, lb.	30	35				Calomel, lb.	1 00	1 10
Pleurisy, lb.	20	25				With Chalk, lb.	60	65
Poke, lb.	15	18						

CHEMICALS.

ACID, Acetic, lb.	12	13	Valerianate, oz.	\$ 55	\$ 60
Glacial, lb.	45	50	AMYL, Nitrite, oz.	16	18
Benzoic, English, oz.	20	25	ANTINERVIN, oz.	85	00
German, oz.	10	12	ANTIKAMNIA,	1 30	1 35
Boric, lb.	13	14	ANTIPYRIN, oz.	1 10	1 20
Carbolic Crystals, lb.	28	30	ARISTOL, oz.	1 85	2 00
Calvert's No. 1, lb.	2 10	2 15	ARSENIC, Donovan's sol., lb.	25	30
No. 2, lb.	1 35	1 40	Fowler's sol., lb.	10	13
Citric, lb.	45	50	Iodide, oz.	50	55
Gallic, oz.	10	12	White, lb.	6	7
Hydrobromic, diluted, lb.	30	35	ATROPINE, Sulp. in ½ ozs. 80c.,	6 00	6 25
Hydrocyanic, diluted, oz. bottles	1 50	1 60	oz.	35	40
doz.	22	25	Iodide, oz.	50	55
Lactic, concentrated, oz.	3	5	Salicylate, oz.	20	25
Muriatic, lb.	18	20	Subcarbonate, lb.	1 80	2 00
Chem. pure, lb.	10½	13	Subnitrate, lb.	1 50	1 60
Nitric, lb.	25	30	BORAX, lb.	7	8
Chem. pure, lb.	75	80	Powdered, lb.	8	9
Oleic, purified, lb.	12	13	BROMINE, oz.	8	13
Oxalic, lb.	1 00	1 10	CADMIUM, Bromide, oz.	20	25
Phosphoric, glacial, lb.	13	17	Iodide, oz.	45	50
Dilute, lb.	30	35	CAFFEINE, oz.	55	60
Pyrogallie, oz.	1 00	1 10	Citrate, oz.	45	50
Salicylic, white, lb.	2½	2½	CALCIUM, Hypophosphite, lb.	1 50	1 60
Sulphuric, carboy, lb.	5	6	Iodide, oz.	95	1 00
Bottles, lb.	18	20	Phosphate, precip., lb.	35	38
Chem. pure, lb.	80	85	Sulphide, oz.	5	6
Tannic, lb.	38	40	CERIUM, Oxalate, oz.	10	12
Tartaric, powdered, lb.	75	80	CHINIDINE, oz.	15	18
ACETANILID, lb.	4	5	CHLORAL, Hydrate, lb.	1 25	1 30
ACONITINE, grain.	1½	3	Croton,	75	80
ALUM, cryst., lb.	3	4	CHLOROFORM, lb.	60	1 00
Powdered, lb.	10	12	CINCHONINE, sulphate, oz.	25	30
AMMONIA, Liquor, lb., SSo.	80	85	CINCHONIDINE, Sulp., oz.	15	20
AMMONIUM, Bromide, lb.	14	15	COCAINE, Mur., oz.	5 50	6 50
Carbonate, lb.	35	40	CODEIA, ½ oz.	70	75
Iodide, oz.	40	45	COLLODION, lb.	65	70
Nitrate crystals, lb.	12	16	COPPER, Sulph., (Blue Vitriol) lb.	6	7
Muriate, lb.			Iodide, oz.	65	70

42 Richmond St., - LONDON.

Iodide, Proto, oz.....	\$ 35	\$ 40
Bis., oz.....	25	30
Oxide, Red, lb.....	1 15	1 20
Pill (Blue Mass), lb.....	70	75
MILK SUGAR, powdered, lb.....	30	35
MORPHINE, Acetate, oz.....	1 75	1 80
Muriate, oz.....	1 75	1 80
Sulphate, oz.....	1 80	1 85
PEPSIN, Saccharated, oz.....	35	40
PHENACETINE, oz.....	40	42
PILOCARPINE, Muriate, grain.....	35	38
PIPERIN, oz.....	1 00	1 10
PHOSPHORUS, lb.....	90	1 10
POTASSA, Caustic, white, lb.....	60	65
POTASSIUM, Acetate, lb.....	35	40
Bicarbonate, lb.....	15	17
Bichromate, lb.....	14	15
Borat (Cream Tart.), lb.....	20	30
Bromide, lb.....	65	70
Carbonate, lb.....	12	13
Chlorate, Eng., lb.....	18	20
Powdered, lb.....	20	22
Citrate, lb.....	70	75
Cyanide, lb.....	40	50
Hypophosphites, oz.....	10	12
Iodide, lb.....	4 00	4 10
Nitrate, gran., lb.....	8	10
Permanganate, lb.....	40	45
Prussiate, Red, lb.....	50	55
Yellow, lb.....	32	35
And Sod. Tartrate, lb.....	25	30
Sulphuret, lb.....	25	30
PROPYLAMINE, oz.....	35	40
QUININE, Sulph., bulk.....	35	38
OZS., oz.....	38	42
QUINIDINE, Sulphate, ozs., oz.....	16	20
SALICIN, lb.....	75	4 00
SANTONIN, oz.....	20	22
SILVER, Nitrate, cryst., oz.....	90	1 00
Fused, oz.....	1 00	1 10
SODIUM, Acetate, lb.....	30	35
Bicarbonate, kgs., lb.....	2 75	3 00
Bromide, lb.....	65	70
Carbonate, lb.....	3	6
Hypophosphite, oz.....	10	12
Hyposulphite, lb.....	3	6

Iodide, oz.....	\$ 40	\$ 43
Salicylate, lb.....	1 00	1 10
Sulphate, lb.....	2	5
Sulphite, lb.....	8	10
SOMNAL, oz.....	85	00
SPIRIT NITRE, lb.....	35	65
STRONTIUM, Nitrate, lb.....	18	20
STRYCHNINE, crystals, oz.....	80	85
SULFONAL, oz.....	40	42
SULPHUR, Flowers of, lb.....	2 1/2	4
Pure precipitated, lb.....	13	20
TARTAR EMBLIG, lb.....	50	55
THYMOL (Thymic acid), oz.....	55	60
VERACINE, oz.....	2 00	2 10
ZINC, Acetate, lb.....	70	75
Carbonate lb.....	25	30
Chloride, granular, oz.....	13	15
Iodide, oz.....	60	65
Oxide, lb.....	13	60
Sulphate, lb.....	9	11
Valerianate, oz.....	25	30

ESSENTIAL OILS.

OIL, Almond, bitter, oz.....	75	80
Sweet, lb.....	50	60
Amber, crude, lb.....	40	45
Rec'd, lb.....	60	65
Anise, lb.....	3 75	3 90
Bay, oz.....	50	60
Bergamot, lb.....	3 75	4 00
Cade, lb.....	90	1 00
Cajuput, lb.....	1 60	1 70
Capiscum, oz.....	60	65
Caraway, lb.....	2 75	3 00
Cassia, lb.....	3 30	3 50
Cedar.....	55	85
Cinnamon, Ceylon, oz.....	2 75	3 00
Citronelle, lb.....	80	85
Clove, lb.....	1 10	1 20
Copaiba, lb.....	1 75	2 00
Croton, lb.....	1 50	1 75
Cubeb, lb.....	2 50	3 00
Cumin, lb.....	5 50	6 00
Frigeron, oz.....	20	25
Eucalyptus, lb.....	1 50	1 75
Fenne, lb.....	1 00	1 75

Geranium, oz.....	\$1 75	\$1 80
Rose, lb.....	3 20	3 50
Juniper berries (English), lb.....	4 50	5 00
Wood, lb.....	70	75
Lavender, Chiris. Fleu., lb.....	3 00	3 50
Garden, lb.....	1 50	1 75
Lemon, lb.....	1 90	2 00
Lemongrass, lb.....	1 50	1 60
Mustard, Essential, oz.....	60	65
Neroli, oz.....	4 25	4 50
Orange, lb.....	2 75	3 00
Sweet, lb.....	2 75	3 00
Oreganum, lb.....	95	70
Patchouli, oz.....	80	85
Pennyroyal, lb.....	2 50	2 75
Peppermint, lb.....	3 00	3 25
Pimento, lb.....	2 60	2 75
Rhodum, oz.....	80	85
Rose, oz.....	7 50	11 00
Rosemary, lb.....	70	75
Rue, oz.....	25	30
Sandalwood, lb.....	5 50	7 50
Sassafras, lb.....	75	80
Savin, lb.....	1 60	1 75
Spearmin, lb.....	3 75	4 00
Spruce, lb.....	65	70
Tansy, lb.....	4 25	4 50
Thyme, white, lb.....	1 80	1 90
Wintergreen, lb.....	2 75	3 00
Wormseed, lb.....	3 50	3 75
Wormwood, lb.....	4 25	4 50

FIXED OILS.

CASTOR, lb.....	8	10
COD LIVER, N.F., gal.....	2 25	2 30
Norwegian, gal.....	3 00	3 25
COTTONSEED, gal.....	1 10	1 20
LARD, gal.....	90	1 00
LINSEED, boiled, gal.....	62	65
Raw, gal.....	60	62
NEALFOOT, gal.....	1 20	1 30
OLIVE, gal.....	1 20	1 25
Salad, gal.....	2 50	2 60
PALM, lb.....	12	13
SPERM, gal.....	1 35	1 40
TURPENTINE, gal.....	60	65

Drug Reports.

Canada.

There is very little of special importance to note this month, business has been quiet in most localities. Camphor is easier in price, but no serious decline is looked for; Glycerine is firm; Cream of Tartar also remains firm at previous quotations; Balsam Tolu is higher, Ergot remains very low; Gum Arabic promises to be dearer on account of the trouble in the Soudan; Castor Oil is firm in price; Linseed Oil somewhat easier; Cod Liver Oil, Norwegian, still advancing; essential oils are for the most part advanced in price.

England.

London, May 27th, 1896.

Business is reported as dull on all hands, and only a jolting demand exists. cod-liver oil has turned the corner and bids fair to descend almost as rapidly as it ascended in price. The season is over for cod-liver oil in England, and citric and tartaric acids as ingredients of popular summer drinks are in request instead. Both of these are at high prices. Camphor has also come down with a run, manufacturers having reduced prices twice during the month. Slicine shows a substantial advance and atropine is slightly

dearer. Saffron is dearer, but as the new crop is shortly expected, it is probably only a market scare. Great efforts have been made to put up gum acacia, but with only indifferent success. Ipecacuanha, jalap, and opium are unaltered, but the latter is reported firmer at Smyrna.

Magazines.

"THE PHOTOGRAM."—This excellent photographers' magazine for June is full of good things, being alike valuable to amateur and professional photographers. The astonishing success which it has met with since its initial number is due to the excellent quality of its contents, being always "up to date" and practical. Those of our readers who are interested in the art should at once become subscribers. Address *The Photogram*, Limited, 6 Farringdon avenue, London, E.C., England. Subscription price is \$1.10 per annum, post free.

Bret Harte's new story and Jerome K. Jerome's latest piece of fiction have both been secured by *The Ladies' Home Journal* for immediate publication. Jerome's story is called "Reginald Blake: Financier and Cad," and sketches an incident in fashionable London society. Bret Harte calls his story "The Indiscretion of Elsiebeth," and pictures the romance of a young American who falls in love with a German princess, masquerading as a dairy maid.

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Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

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The Council Ahead.

The final success of the Council of the Ontario College of Pharmacy in its prosecution of R. Simpson, as set forth below, entitles that body to a degree of credit which is rarely given it. The chances in favor of the Council were not any too bright; but, relying upon the advice of a cautious counsel, and the justice of their cause, they pushed to a definite determination an understanding of the Pharmacy Act. The interpretation, now for the first time given, is one which cannot fail to greatly strengthen the present Pharmacy Act if carefully husbanded and applied.

In the High Court of Justice—Queen vs. Simpson.

STATED CASE.

On the 13th day of April, 1896, the college, through its detective, laid an information in the Police Court, Toronto, against Robert Simpson, the owner and proprietor of a large departmental store on the corner of Yonge and Queen streets, in the city of Toronto, to the effect "that in the months of February, March, and April, 1896, the said Robert Simpson did unlawfully 'keep open shop' for retailing, dispensing, and compounding poisons contrary to the form of the Pharmacy Act and amendments thereto in such cases provided."

The purchase made by the detective consisted of five bottles of drugs, one bottle containing carbolic acid, and the others made up from doctor's prescriptions handed in by the detective and consisting of carbolic acid, aconite, and strychnine. When the detective made the purchase, some of the bottles were wrapped up in printed circulars issued by Robert Simpson, giving the price list in his patent medicine department, and also a notice to the public that those who were interested financially in the filling of doctor's prescriptions should deal with him, as he was prepared, with a complete drug department, to serve the public at the lowest rate of profit compatible with the quality of the drugs. These purchases were proved before the Police Magistrate, also the circular, as well as

the receipt given for the money, which showed that Robert Simpson was the owner of the store and received the payments for the goods purchased.

The case for the College was looked after by Mr. E. T. Malone, of the firm of Edgar & Malone, the College solicitors.

Mr. Ritchie, Q.C., appeared for the defendant, and contended that no breach of the Act had been committed, that the public was properly protected, in that the drug department in the defendant's store was under the sole control of a registered chemist, Mr. Charles Potter Lusk, and that no one but the said Lusk made any sales or put up any prescriptions that contained poisons.

C. P. Lusk, in giving his evidence, swore that by the agreement between him and his employer, Robert Simpson, he, Lusk, had the sole control of the department, even to the exclusion of Simpson. Lusk made all the purchases, but Simpson paid for them and received the proceeds of all sales. Alleged that he was assisted by another graduate of the College, named Mr. Warren.

In cross-examination by Mr. Malone, he produced the agreement between him and Simpson, which was to the effect that he, Lusk, was to manage the drug and patent medicine business carried on at Simpson's, and to sell, dispense, and compound all poisonous drugs and medicines required to carry on such business; that he was to receive one per cent. of the net profits to be derived from the sales of drugs and patent medicines containing poisons and an additional sum of \$15 per week, but no commission was to be paid him on any other sales. The agreement was to be terminated by either party on a week's notice.

The run of the defence was also to the effect that Lusk was a partner in Simpson's business and that as Simpson took no part in the sales he had a right to put his name into the business so long as it was conducted by a qualified party.

The Police Magistrate had no doubt that Robert Simpson was the owner of the business, and that Lusk was only a servant, but when he considered that the public was properly protected by the employing of a registered chemist, who personally conducted the sales of all poisons, he refused to convict and dismissed the case. He refused to listen to English cases, which the college solicitor cited in the support of the conviction.

The College solicitor was, however, able to prevail on the magistrate to state a case for the opinion of one of the Divisions of the High Court of Justice.

We give the case in full, as it contains the material for the argument which took place at Osgoode Hall before Divisional Court.

STATEMENT OF CASE.

Frank S. Warner, prosecutor, and Robert Simpson, defendant.

The defendant, Robert Simpson, is the owner of a large departmental store building at the corner of Queen and Yonge streets, in Toronto, and was charged before me on the information of and complaint of one Frank S. Warner, that he did during the months of February, March, and April, 1896, unlawfully keep open shop at the city of Toronto for retailing, dispensing, and compounding poisons, contrary to the form of the Pharmacy Act and amendments thereto.

On the ground floor of said building a space is set apart for a drug department, which department is and has been under the management and control of one Charles P. Lusk, a duly qualified pharmaceutical chemist registered under the Pharmacy Act, and who had taken out the certificate under the provisions of section 18 of said Act.

It was admitted that the said Lusk did in said department dispense certain drugs containing poison, and sell certain poisons, all of which are mentioned and set out in schedule "A" of the Pharmacy Act and amendments thereto, giving to the respective purchasers a bill of sale on which defendant Simpson's name was printed, and on one of which bills said Lusk had stamped his own name, and thereunder the word "druggist."

At the time of the purchase of the said poisons the said Lusk gave some of the purchasers thereof the printed circular marked exhibit "B," which forms part of this case.

The said Simpson was never inside the said drug department, and never interfered with the conduct of the business therein.

All the goods, including the said poisons, required for the drug department after the employment of the said Lusk were from time to time purchased by the said Lusk, on his own judgment, without consultation with said Simpson, but with the monies or upon the credit of the said Simpson, who also received the proceeds of all sales made in such department, such proceeds going into the general cash receipts of the whole departmental store.

Poisonous drugs required in connection with the dispensing were kept in a closed dispensary partitioned off in said store, and of which said Lusk had the key, and no other employee in said department could gain access thereto without the permission of said Lusk, and upon leaving the department at night said dispensary was locked and the key kept by the said Lusk; but there are some poisons

mentioned in schedule "A" of said Act which are not in said partitioned dispensary, but are kept on shelves and in drawers behind the counters in said drug department.

The position between the said Simpson and the said Lusk appears by the agreement in writing between them, a copy of which is hereto annexed and which forms part of this case; and there was a verbal agreement between said Simpson and the said Lusk that the latter should have absolute control of the said drug department to the exclusion of said Simpson.

On the foregoing facts, and in my view of the law, I dismissed the information and complaint of the said Warner, and, my order of dismissal being questioned by the prosecutor on the ground that defendant was guilty of the offence charged in the information under section 24 of the Pharmacy Act, I state this case so that my decision on the law of the case may be reviewed by a division of the High Court of Justice.

G. T. DENISON,

Police Magistrate.

Dated the 11th May, 1896.

On the 15th of June the appeal of the College on the stated case was heard before Chief Justice Sir William Meredith and Mr. Justice Rose.

Mr. B. B. Osler, Q.C., and Mr. E. F. Malone appeared for the College; Mr. Shepley, Q.C., and Mr. Ludwig, for Robert Simpson.

The result of the argument was that the judges unanimously, and without reserving judgment, directed the police magistrate to convict Robert Simpson, which order was subsequently carried out.

There were some very important points brought out on the argument, as well as references to leading English and American cases.

The College solicitors relied considerably on the case of the Pharmaceutical Society vs. The London and Provisional Supply Association referred to in 4 & 5 Q.B.D. and 5 House of Lords and Privy Council Appeal Cases. This was an action against an incorporated company for selling poison.

The defence set up by the London and Provisional Supply Association was that, being an incorporated company, they did come within the meaning of the Pharmacy Act, as the Act only applied to *natural persons*, and prohibited such *natural persons* from selling, retailing, etc., without possessing the necessary qualifications.

They also contended that the public was protected in that the person having the management of the sales of poison was a registered chemist. The House of Lords decided in favor of the incorporated company, but during the argument, and from expressions used giving the judgment, it was clearly shown that, though an incorporation may be exempt,

still a natural person or a partnership was not exempt, and such persons and partnerships would have to conform to the law.

It was shown, on behalf of the College, that the Ontario Pharmacy Act differed from the English in that the clauses of the Ontario Act are all prohibitory, and that the only exception made by the Act was in the case of executors who were allowed to carry on the business of deceased chemists for the purpose of winding up such business, but that even in such cases such business had to be conducted by a pharmaceutical chemist registered under the Act.

In the House of Lords case, Lord Shelburne, the Lord Chancellor, in giving judgment, distinguished between the charge of selling poison and the charge of keeping open shop, and said: "No doubt the words 'keep open shop' may extend to something more, and comprehend the person who keeps an open shop for the sale of poisons, etc., although he may not by his own hands do the business of selling any poisons, if one is only master and proprietor of the business, if he be a person within the proper directions of the Act."

Again, in another part of the judgment, Lord Blackburn states: "But no doubt the Legislature, for what reason it is for those who passed the Act to say, have thought it best to say that a 'person,' which I take to be a natural person, shall not only not sell, but shall not keep an open shop for the sale. I myself think that probably one of the reasons for that was to facilitate convictions, and another may have been that it was thought, if there is a person who keeps a shop who is unqualified, he may have a qualified assistant, and he will be able to overrule the qualified assistant at any moment he pleases, and there may be danger in that."

Lord Cockburn says that the intention of the Legislature appears clearly to have been to prevent any shop or establishment to exist for the sale of poisons except under the immediate superintendence and control of a duly qualified proprietor. It is not enough that the proprietor employs a qualified person to manage the business; the master himself must be duly qualified. Two parties could not combine to carry on the general business of grocer and chemist, though the one attending to the latter part of the business might be a qualified chemist. There would be nothing to insure in such a case that, in the absence of the qualified person, the other might take upon himself to act in his stead, and thus the security against future mistakes in dispensing of medicine which the statute was intended to insure, might be seriously compromised.

When Mr. Shepley attempted to argue that the passing of the Pharmacy Act was *ultra vires* of the Legislature, the judges refused to give effect to such an argument. During the argument a case almost

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Tablets. (100 3-grain Tablets in bottle) per doz. \$9.00
 " (1000 3 grain Tablets in bottle) . each 6.75
 Powder. (1 oz. bottles) per doz. 9.00
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Blaud Pill Capsules

Are soft and flexible Never become oxidized
 Never become hard Never vary in strength

These Capsules are put up in 1, 2, and 3-pill sizes, with or without Arsenic, and can be supplied in boxes of 25 or 100 (each). They are prepared by a unique and original process, which entirely overcomes the tendency to **hardening** which is so common in the **Blaud Pills**.

R. L. GIBSON,
 30 Wellington St. East,
TORONTO.



SEASON 1896.
BILLINGS, CLAPP & CO.'S

Ideal
Lemonade
 AND
Root Beer
 * **Tablets**

Put up in 10-Cent Bottles

Are the best Tablets we have handled, and have given general satisfaction.

THEY ARE PUT UP IN DISPLAY BOXES
 OF HALF-A-DOZEN EACH THIS SEASON

For the Soda Water Fountain.

French, Cave & Co.'s Crushed Violet, Red Orange Phosphate, Victor Barothy Co.'s Tangerette, Lime Phosphiz, and Gum Foam, Murchison's Celery Phosphate and Acid Phosphate.

Just Received, a Fresh Shipment of Chapireau's Cacheteuses No. 1, 2, and 3, and Cachets. Full assortment of Faultless Pepsin Chips in Glass Boxes, Baskets (something new) Royal Remedy and Ext. Co.'s Sweet Wheat, Celery and Pepsin, After Dinner and Gum Tolu Sugar Plums; Heide's Licorice Pastilles, Gilt Edge Spruce Gum, etc.

ADAMS' ROOT BEER EXTRACT.

10 and 25 Cent Bottles. — THE GREAT SELLER —

Canadian Specialty Comp'y.

38 Front Street East, TORONTO, ONT.

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Lime Juice

IS SEASONABLE

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NONE BETTER IN FLAVOR.....
 NONE BETTER IN VALUE.....
 A PROFITABLE ARTICLE.....
 ATTRACTIVE PACKAGES.....

Small size, \$1.60 (pint clarets).
 Large size, \$3.80 (quart whiskeys).

CORDIAL, { \$2.00
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 TRIANGLE TOOTH SOAP
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Unscented Transparent Glycerine
 Cold Cream and Oatmeal
 White Rose and Glycerine
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 Family Juvenia
 Floral Soaps
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...ORDERS
 ...RESPECTFULLY
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..Bryant's Root Beer..

10-cent Bottle=5 Gallons

Box of 2 doz. for \$1.50 net

\$9.00 per gross, with METALLIC DRUM SIGN



ELLIOT & CO. 5 FRONT STREET EAST.
 TORONTO.

DRUGGISTS

NOW IS THE TIME TO
STOCK UP WITH

DAVIS' FLY FELTS

The Popular
Fly Poison.... **5c.**

THIS PACKAGE CONTAINS FOUR FELTS.

DAVIS'

FLY POISON FELTS

NEVER FAILS
TO DESTROY

FLIES
AND

INSECTS.



SUPERSEDES
Fly Paper and all other

POISONS.
Being Convenient and

EFFECTIVE

DIRECTIONS.
Place one of the Felts upon a dish or plate; keep wet with water. Use only enough water to soak the Felt. Flies will drink the poisoned water off the Felt and die immediately.
Placer un de ces Felts au-dessus d'un plat ou assiette; tenez-le humide avec de l'eau. Utilisez seulement assez d'eau pour temper le Felt. Les mouches surtout les cas empoisonnes, sortiront du Felt et mourront immédiatement.

CAUTION.—Should the liquid be swallowed by accident at once administer in large doses, Lime Water, Flaxseed Tea, or Iron Rust, followed by an emetic and drinks of Milk or Flour and Water.

PRICE 5 CENTS.

MANUFACTURED BY
POWELL & DAVIS CO., CHATHAM, ONT.

The Reliable
Fly Poison.... **5c.**

SPECIAL PRICE :

Three Box Lots, - - - \$6.75
Single Cases, - - - 2.50

ORDER THROUGH WHOLESALE
DRUG AND PATENT MEDICINE
DEALERS.

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LIVE DRUGGISTS

—BUY AND SELL—

ADAMS' ROOT BEER



OTHER DRUGGISTS

BUY IMITATIONS AND
KEEP THEM



ADAMS' IS ADVERTISED IN 250
CANADIAN NEWSPAPERS

THE PUBLIC ALWAYS ASK FOR
THE ADVERTISED KIND

on all fours with the present one was referred to, viz., State vs. Norton, 67 Iowa Reports 641. In that case the defendant kept a drug store, and liquor, alleged to have been kept with the intention of selling the same in violation of the law, was kept in the drug store or in a room connected therewith.

The defendant claimed that the liquor was kept for the purpose of medicine, and that whatever had been sold had been sold for such purposes, and, while the defendant was proprietor of the store and stock, he did not claim to be a registered pharmacist; he offered to show that his prescription clerk was, and that all sales were made by the clerk. The court refused to receive the evidence, when the defendant appealed to set aside the conviction on the grounds of rejection of evidence, but the judges of the Court of Appeal, in giving judgment, said: "There is no doubt that a person may lawfully become the proprietor of a stock of drugs without being a registered pharmacist, but being such proprietor is quite a different thing from conducting a drug store. A room or building in which the business of selling drugs is conducted is a drug store, and the conductor of the store, within the meaning of the statute, is the person who has the ultimate right to control the business in respect to its continuance or discontinuance, the employment of clerks, the fixing of prices, etc. It matters not with what powers the clerk may be clothed, he cannot be said to be the conductor of a store while the powers are merely derivative. In our opinion the design of the statute was to prohibit persons not registered as pharmacists from engaging in the responsible business of buying and selling drugs as dealers.

The court then held that the defendant was properly convicted. This case also disposed of any argument of Robert Simpson's solicitors that the small space set apart in said departmental store could not be said to be a shop within the meaning of the Act.

The members of the Council of the College deserve the thanks of the druggists of this province for bringing this case before the Superior Court and setting aside the judgment of the Toronto police magistrate. It is the first case of the kind in the Dominion of Canada. It thoroughly establishes what keeping *open shop* means, and who are the proper persons to engage in the business of druggist.

The Microscope in Pharmacy.

A good microscope is almost indispensable to the physician and the pharmacist. The time when the microscope was viewed merely as a scientific toy wherewith to view the millions of animalcules in a drop of stagnant water, or the minute in nature, is long since past. While it is true that many persons of means and leisure are daily using the microscope to gratify their desire (or curi-

osity, if you will) to investigate the minute in nature, and thus increase, in no inconsiderable manner, the new funds of scientific information, it is also true that to the physician in the diagnosis of disease, to the pharmacist wishing to detect adulterations, and to the chemist in his work it has been indispensable. It is now regarded as indispensable in many lines of business where years ago its use was not even thought of.

Since the discovery of the bacillus of tuberculosis by Koch, the microscope has been more and more depended on in the detection of tuberculosis. The physician feeling doubtful in regard to whether the trouble is tubercular or not can, by means of the microscope, settle the question with precision in most cases, the presence of bacilli tuberculosis in the matter or tissue establishing beyond question the fact that the disease is tuberculosis. Again, the microscope is being largely used in the diagnosis of tumors and morbid growths as to their malignancy. It is also indispensable in the examination of urinary sediment. To the analyst it is indispensable, oftentimes the microscopical examination of water being more valuable than the chemical analysis. Without the modern microscope the whole science of bacteriology would of necessity not exist, and such investigation would be impossible.

To the pharmacist, it seems to the writer, more than any other, microscopy offers an inviting field; and, more than that, it may be made a source of profit. The physician often has little time, and sometimes less inclination, to pursue this line of investigation, and often the work is not done because there is no one to do it. It seems that if the pharmacist would fit himself to do this work it would be appreciated by the physician, and would lead, in many instances, to a better understanding between them.

It is argued that in order to prepare to do this work one requires a considerable sum of money. This is true, but it is also true that such outlay would not be all made at one time. First, a suitable stand (one that would take the modern accessories) should be purchased, and then add accessories from time to time as they may be needed, and as the student may feel that he can spare the money. It is a mistake to buy a cheap instrument to learn with, for such instruments will soon be found insufficient, and the owner is often deterred from purchasing a more suitable instrument because of his inability to dispose of the old one. This is too often the case.

A good stand, and that will take all the modern accessories, should be purchased at the outset. It should have both a fine and coarse adjustment. A stand having no fine adjustment may be proper for some purposes, but for the finer work it is not. Either a Universal or Investigator stand will meet every requirement. These are listed by the manufacturers with one eye-piece at \$55, and \$45 respectively. A 1-inch eye-piece will be

found best where only one is purchased, if more are purchased a 1½ inch and a 7 inch will be very handy. At first a 7 inch and a 1 inch objective will be found sufficient. In purchasing a 1 inch objective, see that its aperture is at least 0.84 N.A.; or, better, 0.92 N.A. As the student becomes more adept in working with the microscope, and wishes to branch out into bacteriology, an oil immersion objective of 1¼ or 1½ inch will be found almost indispensable. These will be found to answer every purpose nicely, but often other objectives will be found very convenient. The writer has a 1¼-inch objective of 0.58 N.A., which he would be loath to part with, it being the handiest objective in certain work he has ever seen. It is excellent in examining urinary sediment, and with it casts can be detected, although the latter are more satisfactorily viewed with a 1 or 1½ inch objective. A good 1 or 1¼-inch objective will show bacilli tuberculosis nicely; still, for this class of work an oil-immersion objective is to be preferred.

In using an objective of high power a condenser will be found invaluable; indeed, it is claimed by many competent observers that without a condenser the full capacity of the objective (high power) cannot be shown. Thus one might go on and enumerate what every person will find out for himself when he purchases a satisfactory stand.

As remarked above, the pharmacist is in a position to do this work. A knowledge of microscopy is not to be gained by studying a few books and looking into the microscope a few times, but is only to be gained by such intelligent familiarity with the appearance of objects under the microscope as will enable the observer to judge of what he sees. In other words, it is not so much a question of how to see, but what is seen, and this comes only from practice.

In order to work intelligently with the microscope itself, its adjustments, etc., also to prepare properly material for examination, the student will find it necessary to study closely the standard works relating to the instrument. For a descriptive and explanatory work on the microscope itself, Stoke's "Microscopical Praxis" is the best work the writer is familiar with, price considered. Gage's "Microscopical Manipulations" is an excellent work, and so is Clark's "Practical Microscopy." Wetherell's "Medical Microscopy" is a standard work dealing particularly with the subject from the physician's standpoint; but it is not as complete as Jakseh's "Clinical Diagnosis," which deals very freely with the subject.

With these books at hand the student is in position to enter systematically into the study of microscopy. The writer believes that nothing is so conducive to skill in manipulation as practising on a few slides of diatoms. These can be purchased, and, if carefully selected, will prove very valuable to the student in his work.—*Western Druggist.*

Correspondence.

The Editor does not hold himself responsible for the opinions of correspondents.

Correspondents must in all cases send name and address, not necessarily for publication.

Editor CANADIAN DRUGGIST:

SIR,—Some of the daily papers published an article in reference to the recent fire and assignment of McKendry & Co., of this city, in which our name was mentioned as creditors. As this was published in error it was corrected in a later issue of said papers. Fearing that the correction did not have the same publicity as the statement, and that this might have a tendency to injure our business among some of the drug trade, we wish to state that McKendry & Co. did not owe us anything, and, further, that we do not sell to departmental stores and cutters.

To prove that our statement is correct we give below a letter from McKendry & Co., and also one from F. J. Sanders, manager of the drug department of said firm, which speak for themselves.

M'KENDRY & CO.'S LETTER.

We notice the name of The Dodds Medicine Co. has been published as one of our creditors.

In justice to this firm we wish to publicly deny the statement, as we have no account whatever with this concern. McKee, Smith & Co., which is controlled, we believe, by The Dodds Medicine Co., are creditors of ours to the extent of the amount mentioned, for coffees, spices, and other goods in their line, which probably accounts for the error.

Yours,
(Signed) M'KENDRY & Co.,
P. P. C. D. M'KENDRY.

F. J. SANDERS' LETTER.

I have been manager and buyer in the drug department of McKendry & Co. since March 1st, 1896, and beg to state that this department has not been supplied with any goods either directly or indirectly by The Dodds Medicine Co.

(Signed) F. J. SANDERS,
Druggist.

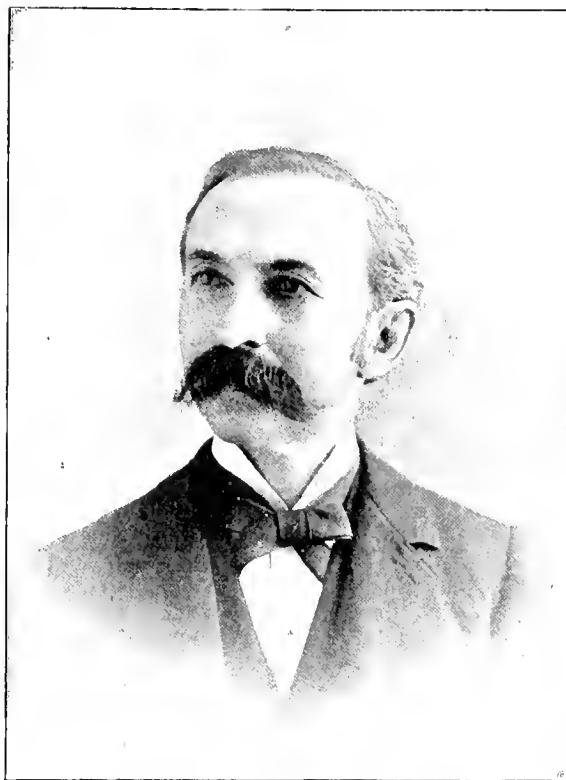
By publishing the above you will confer a favor.

Respectfully yours,
THE DODDS MEDICINE CO., LTD.
Toronto, Can., June 29th, 1896.

Quebec Pharmaceutical Association - Annual Meeting.

The annual meeting of the Pharmaceutical Association of the Province of Quebec was held in the lecture hall of Laval University, Quebec, Mr. R. W. Williams, of Three Rivers, president, occupying the chair. After the reading of the minutes of the previous meeting, the chairman

called upon Mr. E. Muir, the secretary-registrar, to read the annual report and treasurer's financial statement, both of which were highly satisfactory, and, upon motion, were unanimously adopted, after which the president read his annual address, going pretty fully into the position of the association, and touching upon a number of points which had come up for discussion in the council during the past year. The president's address, with the annual report and financial statement, were, on motion, ordered to be printed in French and English and circulated among the members, after which a motion was adopted appointing Dr. T. D. Reed, of Montreal, honorary member of the association, and Mr. Alexander Lemieux, of Quebec, as scrutineers, who retired to count the ballots for the six new members



James M. Good, Ph.G., St. Louis, Missouri,
President of the American Pharmaceutical Association.

to be elected as members of the council, the number of ballots received being the largest in the experience of the association. During the counting of the ballots, discussion took place upon matters of general interest to the association, notably the desirability of extending the curriculum of study for students entering the study of pharmacy, and also the desirability of raising the standard of the major and minor examinations. The scrutineers, having completed their work, announced the following gentlemen to have received the highest votes polled; they, therefore, are duly elected as members of the council for two years, namely: Messrs. Joseph Contant, S. Lachance, R. McNichols, Alexis Robert, Dr. J. Leduc, and J. E. Barnabie; these, with the following gentlemen, namely, Messrs. R. W.

Williams, C. J. Covernton, A. D. Mann, C. E. Scarff, and J. Emile Roy, will comprise the council for the ensuing year. After the usual votes of thanks had been adopted, the meeting closed.

Melting Point of Gelatin Masses.

It is by no means easy to determine with any great degree of accuracy the temperature at which gelatin masses pass from the solid to the liquid condition, especially when a test-tube, thermometer, and water bath are the means employed, and much time is also occupied in making determinations by the usual method. R. C. Bayley has, therefore, devised a simple form of apparatus, which consists of an oblong water bath holding a considerable quantity of water, and is so constructed that it can be heated by a spirit lamp or Bunsen burner without the hot air or products of combustion reaching the longest side in front. The bottom makes an angle of forty-five degrees with the front, so that the back is not quite half the depth of the front. In the section of the apparatus, the front is 45 mm. deep, the back, 20 mm.; the width of the bath is 25 mm., and the sloping base measures 35 mm. from back to front. The length of the bath is apparently about 100 mm., and a leg is attached at each end of the back so as to support the sides in a vertical position. A straight line is ruled along the front of the bath an inch from the top, and one or more thermometers are supported inside the bath, with their bulbs parallel to this line. In use the apparatus is laid on its back, and small discs of the gelatin masses to be tested are cast on the front, with their lower edges just upon the line. The discs should be a quarter of an inch thick, and are moulded by pouring the melted gelatin into paper tubes half an inch in diameter, resting upon the front of the bath. When set, the paper is removed and the bath placed erect. Water is then poured in and heated from below, and directly the melting point of one of the discs is reached it begins to slide down the side of the bath. The melting point of one jelly, as ascertained by the usual means, was found to vary between 23° and 25°, the mean being 24°. Six discs of the same jelly were placed on the new apparatus, and all began to move when the nearest thermometer registered 26°. Other experiments gave similar results, the readings being uniformly two degrees higher than the mean of a number of determinations by the ordinary method.—*Photographic Journal*.

145,000 gallons of castor oil are used annually in Scotland for turkey-red dyeing



READ THIS

Dear Sirs,
 The following may be of use to you: "A customer of mine, who keeps a butcher shop in this town, bought a 10-cent package of your Fly Pads from me and in ten days killed over a BUSHEL MEASURE OF FLIES." Yours truly,
 F. G. SANDERSON.

St. Marys, August 3rd, 1892.

IT WOULD TAKE OVER
 300 SHEETS OF STICKY PAPER
 TO HOLD THIS BUSHEL OF FLIES

WILSON'S
FLY PADS
 SOLD BY ALL DRUGGISTS

Sell . . . **WILSON'S** **FLY PADS**

They are far more destructive than any other Fly Poison, and will always give your customers satisfaction.

Beware of imitations got up to sell on the reputation of Wilson's Fly Pads.

WILSON'S **ROOT BEER**

Has taken the trade by storm. Already we have sold far more than during the whole of last season, and the demand is increasing fast. Without doubt Wilson's is the best Root Beer. Each 10-cent bottle makes five gallons.

**Archdale Wilson & Co.,
 Hamilton.**

TO RENT.



Best Drug Stand in Canada

The most desirable unoccupied stand in Canada is the corner store of the MASONIC TEMPLE, LONDON, and very little investigation will convince anyone of the fact.

It is the nearest to all the hotels, the railway station, and the market, besides adjoining the Grand Opera House, and a large transient trade can be had.

The shop is on the corner of Richmond and King streets, is heated by steam, and the rent (which is very moderate) includes both heat and taxes

A smart, active man who has the confidence of the medical profession should make a fortune here. There are several wholesalers in the city, and only a moderate stock need be carried.

For terms and other particulars apply to

John Overel,
 Secretary Masonic Temple Co.,
 London, Ont.

Wampole's

BEEF, WINE, AND IRON.

In Pint Bottles.....\$5 00 per doz.
 Winchester (1/2 Imp. Gal.)..... 2 00 each.
 Imp. Gallon, in 5 gal. lots, and over 3 50 per gal.

With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

1/4 Gross lots, and over.....\$60 00 per gross.
 (Packed in One-Dozen Cases.)

We use a Pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

We invite comparison with other manufacturers, and will cheerfully furnish samples for that purpose.

Your early orders and enquiries solicited through Wholesale Jobbers or direct from us.

Henry K. Wampole & Co.,
 MANUFACTURING PHARMACISTS,
 Philadelphia, Pa.

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We Manufacture

Envelopes
Writing Tablets
School Blanks
Memo. Books, etc., etc.

And are Headquarters for

ALL KINDS of **STATIONERS' SUPPLIES**

DO YOU WANT THESE GOODS?

Then write us for prices.

THE W. J. GAGE CO., LTD.,
52-54 Front St. West, - - TORONTO.

DO YOU CARRY ODOROMA IN STOCK
If Not, Why Not?

ODOROMA**The Perfect Tooth Powder**

Has captured the market wherever it has been introduced. If it is a new thing to you, here are a few reasons why you should handle it:

It is cleansing, antiseptic, fragrant, refreshing.

It is perfectly harmless.

It has been analyzed by the most expert chemists, who all report in the most favorable terms.

It sells at a glance in the first instance, and on its reputation thereafter.

It yields more profit to the retailer, and to the consumer a greater quantity of the best quality, than any other tooth powder in the world.

Order from your wholesale house

AROMA CHEMICAL CO., - TORONTO

The J. STEVENS & SON CO'Y, Ltd.,
145 Wellington St. West, TORONTO.

(Near Union Station.)

Druggists' Specialties,
Surgical Dressings,
Elastic Stockings,
Clinical Thermometers,
Glass Importers,
Trusses and Suspensories,
Medical Batteries,
Lints and Cottons,
Abdominal Belts,
Instruments of all kinds

Send for quarterly quotations.

PRICE LIST

**Common Sense Exterminator
FOR ROACHES**

25c. each, \$1.75 doz.; 50c. each, \$3.75 doz.; \$1.00 each, \$8.00 doz.

**Common Sense Exterminator
FOR RATS AND MICE:**

15c. each, \$1.00 doz.; 25c. each, \$1.75 doz.; 50c. each, \$3.50 doz.; \$1.00 each, \$8.00 doz.

Only infallible remedy known. No smell from Dead Vernin. **Not Poisonous** to man or beast. Once used always recommended. Sold by Wholesalers at

MONTREAL, TORONTO, and LONDON.

Common Sense Mfg. Co.,

523 King Street West, Toronto.

Manufacturers of Common Sense Stove Polish, and Common Sensoline Bicycle Lubricator.

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L.D.Co. STICKY FLY

MARSHALL'S FLY CATCHER

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LONDON DRUG COMPANY

London, Ont.

Sponges! Direct from the Fisheries
Sponges!

In original packages, unbleached; or in cases, bleached.

A Large Assortment of

MEDITERRANEAN

Bath Honeycomb, Forms and Half Forms, Extra Fine Silk Toilet, Fine Silk Pottery, Zinocha Pottery in every size and grade.

NASSAU and FLORIDA

Fine Sheepwool, Velvet, Grass, Reef, Surgical, Slate, Yellow, in every size and grade.

Exceptional advantages in buying enable us to sell cheaper than any other house in the trade.

[SPONGES ARE OUR SPECIALTY]

We also keep a full line of
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Skins

which we are offering at low prices to the trade.

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Ginseng Root

We want your Ginseng and will pay highest market values. Write us for quotations.

Bach, Becker & Co.

Dealers and Exporters of Raw Furs and Ginseng

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**Order Soon
A Sure Killer****Lyman's Lightning Fly Paper**

Sold for over forty years in sheets; put up now in new form in pads, as this cut shows.

5c. and 10c. packages

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10c. and 25c.

MUNYON'S REMEDIES

Finkler's Papaine Iatroj
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Iodoform
Fritz's Salt Regal
Apenta Water
Lamplough's Saline
Paquin's Anti-Tubercle Serum

The Lyman Bros. & Co., Ltd.

71 and 73 Front Street East

Toronto.

Trade Notes.

The drug stores of R. A. Davis and H. Johnston, Tilbury Centre, Ont., were destroyed by fire June 19th.

Amongst the passengers for Europe by the Allan Line S.S. *Nimidian*, June 20th, was W. J. Dyas, of THE CANADIAN DRUGGIST, who is off for a brief holiday.

Hooper & Co., druggists, King street west, Toronto, have had a new front put in their store, materially adding to the appearance of the place, although it loses somewhat of its identity to the "oldest inhabitants."

Montreal Notes.

The result of the voting at the annual meeting of the Pharmaceutical Association of the Province of Quebec, a full report of which appears in another column, was a surprise to many. The French-Canadian ticket was voted *en bloc*. Every English Canadian name on the nomination paper was struck off, amongst them being some of the oldest and best-known pharmacists in the province. The number of licensed pharmacists entitled to vote stands at 100 English-speaking, against 116 French. No one can question the right of the majority to rule. It is not, however, judicious to exercise this right in all cases.

Mr. Jules Hertz has opened his new pharmacy, which he has called the "Cosmopolitan." Mr. Hertz speaks English, German, and French, and is an experienced pharmacist. He is the proud possessor of one of the prettiest little pharmacies in Montreal.

Mr. Ransom has recently opened a pharmacy in Lachine, a fashionable suburban watering place near Montreal. A pharmacist speaking English and French as much wanted there. Mr. Ransom will fill the bill.

Mr. E. G. Daniel has removed his pharmacy to the store lately occupied by the Auer Light Co., next the court house, Notre Dame street. Mr. Daniel's business has largely increased of late.

There is a very undeserved attack on Mr. E. Muir, the much respected secretary of the Pharmaceutical Association, in the May number of *Le Pharmacien Canadien*, just issued. Mr. Muir is respected by all who know him, and he is devoted to the duties of his office, besides being one of the earliest workers with Mr. Gray in organizing and obtaining legislation for the Pharmaceutical Association. Mr. Muir has done his duty to the satisfaction of every council since his appointment.

Mr. Edward Morin has sold out his pharmacy to Mr. J. L. Beaudry, who has recently returned from the United States. The pharmacy is on the corner of St. Catherine and German streets.

Mr. Thomas Goulden has assumed the Curtis pharmacy, on Bleury street, near Sherbrooke.

Mr. W. A. Dyer has opened a new pharmacy at the corner of Bishop and St. Catherine streets. Mr. Dyer ought to have friends enough in that neighborhood to make things lively.

Prof. Reed, Dean of the Montreal College of Pharmacy, leaves town this week for Washington and the South, and intends returning *via* New York, in about two weeks.

Montreal druggists hail with delight the signs of the times in the United States with regard to the agitation for shorter hours for drug clerks and no all day Sunday attendance. An hour or two in the morning and again in the early evening is all that is required by the public, and no soda water and cigar business on Sunday seems to be the platform.

British Columbia Notes.

Business throughout the province continues moderate, though a more hopeful feeling among the druggists, and, in fact, all business men, is decidedly present. The push given to mining through the Kootenay district on the mainland, Alberni on the Island, and Texada Island, will not be without its beneficial results, and British Columbia will, doubtless, have cause to congratulate herself on being a rich province. As intimated, business generally is not rushing, but people are holding on, sanguine as to the future.

The wife of Mr. J. A. Teporten, manager of the Vancouver branch of Langley & Henderson Bros., decided to commemorate the inauguration of the new firm by presenting her husband with twins. Six boys have now to develop into blushing druggists from that home.

Langley and Henderson Bros. have now settled down as wholesalers. They are renovating the old stand, and already it is scarcely recognizable. The prescription books, containing upward of 93,000 prescriptions, were sold to Mr. C. E. Jones, his being the highest tender of the five put in.

The following is a report from the *Westminster Columbian* of June 12th, of the annual meeting and banquet of the British Columbia Pharmaceutical Association:

The annual meeting of the British Columbia Pharmaceutical Association was held in this city in the Board of Trade Rooms, which, through the courtesy of the Board of Trade, had been placed at the disposal of the association. The business transacted was chiefly routine—receiving reports, elections, and the reading of the address of the retiring president, Mr. T. M. Henderson, of Victoria. This latter was especially good, and went a long way towards compensating for the absence of Mr. Henderson, who was unavoidably detained in Victoria.

After considerable discussion on the various matters coming up for consideration, the reports were adopted, and the

election of officers for the ensuing year was then proceeded with, and resulted as follows: President, T. E. Atkins, Vancouver; vice-president, E. McG. Van Houten, Nanaimo; sec. treas.-registrar, J. K. Sutherland, Vancouver.

Three of the councillors retiring by rotation, the vacancies were filled by the election of Messrs. R. G. Macpherson, Kamloops; T. E. Atkins, Vancouver; and E. H. Hiscock, Victoria.

After passing a vote of thanks to retiring officers and others, the meeting adjourned to the Colonial Hotel, where, being joined by a few invited guests, they ascended to the banqueting hall. Here covers had been laid for about twenty-five, the tables being tastefully decorated with flowers, etc.

Those who had seats at the festive board were: Thomas Shotbolt, Victoria; E. Van Houten, Nanaimo; J. R. Seymour, T. E. Atkins, J. M. Atkins, Chas. Nelson, H. McDowell, J. K. Sutherland, W. A. Griffiths, John Reid, and J. R. Templeman, Vancouver; J. A. Wright, Montreal; D. S. Curtis, T. A. Muir, H. Ryall, Capt. Peele, G. Cote, W. Dockrill, and a *Columbian* representative.

A neat souvenir menu gave the guests an idea of what kind of diet they were put on, and each took without a whimper the prescription put up for him in the dispensary of "mine host." After the solids had been ground, pulverized, and placed in solution, the graduates were filled, and the president proposed "The Queen," all rising and singing, lustily, the National Anthem. "Pioneer Druggists of British Columbia" was the next toast, coupled with the name of Captain Peele, who was one of the earliest chemists and druggists in the Province. The captain, who was in good form, responded briefly with a few well chosen remarks. "The British Columbia Pharmaceutical Association" was replied to by J. R. Seymour and John Reid. The chairman made a few remarks, regretting that the lateness of the hour prevented the toast list being gone through with.

After a song by Mr. Cote, and instrumental solos and duets by Messrs. Dockrill and Hill, which were heartily encored, the company dispersed, singing "Auld Lang Syne."

A special car, in waiting, conveyed most of the visitors to Vancouver, they being loud in their praises of Westminster's hospitality.

The retiring sec. treas.-registrar, Mr. Chas. Nelson, deserves great praise for the able manner in which he has discharged the duties of that office for the past few years. He has skilfully managed the affairs of the association through very critical periods of its history, and has always manifested an intense interest in pharmaceutical advancement in this province. In the new registrar, Mr. J. K. Sutherland, the association has an efficient successor to Mr. Nelson. He is a young man, about twenty-three years, a native of Belleville, Ont., and a graduate of the

Ontario College of Pharmacy. Since his arrival in this Province he has worked hard for the drug business, and has been most prominent in efforts to maintain right prices, and keep down cutting tendencies. He is accorded a hearty welcome as sec.-treas.-registrars of the British Columbia Pharmaceutical Association.

Books for Druggists.

Any of the following books will be mailed on receipt of the prices named:

British Pharmacopoeia.....	\$2 00
British Pharmacopoeia Addendum.....	35
U.S. Dispensary (in cloth).....	7 50
U.S. Dispensary (in leather).....	8 25
U.S. Dispensary (in leather) with index.....	8 50
National Dispensary.....	8 50
National Formulary.....	1 00
Atfield's Chemistry.....	3 25
Gray's Botany, first lessons.....	1 40
Maisch's Materia Medica.....	3 50
Martindale's Extra Pharmacopoeia.....	2 00
Pereira's Prescriptions.....	75
Parrish's Pharmacy.....	5 25
Squire's Companion.....	3 25
Remington's Pharmacy.....	6 00
Practical Dispensing.....	50
Minor Ailments.....	1 50
Heebner's Practical Synopsis of B.P.....	1 00
Heebner's Manual of Pharmacy, etc.....	2 00
Manual of Formulæ.....	1 50
Diseases of Cats and Dogs.....	75
Practical Dentistry.....	50
Harrop's Monograph on Fluid Extracts.....	2 00
Harrop's Monograph on Flavoring Extracts.....	2 00
Quiz Compend on Pharmacy, Stewart.....	1 00
Caspan's Treatise on Pharmacy.....	4 50
Coblenz's Handbook of Pharmacy.....	3 50
Druggists' Price Books.....	2 00
Standard Dictionary, Funk & Wagnalls, single volume.....	\$12 to 18 00
Standard Dictionary, in two volumes, according to binding.....	\$18 to 22 00
Art of Compounding, by Scoville.....	2 50
Bartley's Medical Chemistry.....	3 00
How to do Business (McLean).....	75
Sayre's Organic Materia Medica and Pharmacognosy.....	4 50
Practical Perfumery.....	50

CANADIAN DRUGGIST, Toronto.

TO SOFTEN HARDENED MEDICINAL EXTRACTS.—A. Schacherl (*Oest. Zeit. f. Pharm.*) has found that a few drops of glycerine spread over the surface of the hardened crust of solid extracts soon causes softening and prevents further drying.

Carvol Derivatives.

We give here a brief abstract of two papers by Prof. Bayer on derivatives of Carvol, taken from Schimmel & Co.'s report.

(1) *Carone*. On standing with alcohol and dilute sulphuric acid carone takes up water, forming oxytetrahydrocarone, identical with the oxyhydrogenium addition product of dihydrocarone. Carone bisnitrosylic acid (obtained by the action of hydrochloric acid upon bisnitrosocarone), is changed to bisnitrosylic acid of oxytetrahydrocarone, melting at 184° C. when its alcoholic solution is exposed to steam. When acted upon by acetic acid and hydrobromic acid, the hydroxyl group of this body is replaced by bromine and bisnitrosylic acid of (8)-bromtetrahydrocarone, melting at 130° C. results. This is again converted, by the action of alcohol, into caronebisnitrosylic acid, melting at 93° C. Oxycarone is formed when sodium hydrate solution is added to the alcoholic solution of bisnitrosocarone-dichloride, and ketoterpene is formed, when the former is agitated with dilute sulphuric acid.

2. *Carvone*. When α or β *d*-limonenitroschloride is allowed to stand with a mixture of alcohol and hydrochloric acid, active hydrochlorcarvoxime is formed. Inactive hydrochlorcarvoxime is formed (a) from inactive carvoxime, (b) by mixing the two active compounds, (c) from hydrochloridipentenitroschloride when acted upon by ether and hydrochloric acid, (d) from terpineolnitroschloride, (e) from pinenitroschloride. From this department Prof. Bayer infers that carvone, limonene, terpineol, pinene, nitrosopinene and isocarvoxime belong to one family, since they all form hydrochlorcarvoximes upon proper treatment.

3. *Tetrahydrocarvone*.—By the action of amylnitrite and hydrochloric acid originate: (a) an oximido acid $C_{10}H_{16}NO_3$, and (b) bisnitrosotetrahydrocarvone.

(a) The oximido acid, when acted upon by acids yields isopropylheptanonic acid, which can be oxidized so as to form isopropylsuccinic acid. This is also formed by the oxydation of tetrahydrocarvone. The ethylic ester of isopropylheptanonic acid is reduced by Na, forming acetylisopropylketopentamethylene, which is again converted into the original ketonic acid, when it is boiled with dilute potassium hydrate.

(b) Bisnitrosotetrahydrocarvone, when acted upon by hydrochloric acid, gives tetrahydrocaronebisnitrosylic acid, oximido acid, just mentioned, and a ketone containing chlorine; the latter is converted into a new terpenone $C_{10}H_{16}O$ on the discharge of a part of hydrogenchloride; this boils at 233-235°, has an odor somewhat like caraway, but, strange to say, is not identical with carvotanacetone.

(4) *Eucarvone*, when oxydized by potassium permanganate, is converted into asymmetric dimethyl-succinic acid. Eucarvoxime is not acted upon by ether and hydrochloric acid.

Fruits.

Ripe fruit of all kinds, almost, including nuts, are attractive, delicious, appetizing, and healthful. Overripe and immature fruit is neither appetizing nor healthful. Since so much is said about appendicitis a great many persons who are very fond of fruit and who need it, discard its use through fear of being attacked with this affection. The disease is not any more common than it used to be. It is only more generally recognized, and it is the explanation of many sudden and fatal attacks of peritonitis, or inflammation of the bowels—the causes of which are unknown.

Most persons who discard fruit because of their fear of appendicitis use the pulpy fruits, such as apples, pears, plums, and peaches, freely and confidently, while they deny themselves the many-seeded fruits such as raspberries, blackberries, strawberries, grapes, etc. These small and many-seeded fruits can always be eaten with impunity if taken with other food especially with bread, potatoes, and such glutinous and starchy foods as afford covering for the seeds. It is surprising what sharp, and rough, and indigestible substances will safely pass through the whole intestinal track without doing any injury at all, if plenty of potatoes, bread, or oat meal is eaten at the same time. The best time to eat any fruit is at the table and with other food.

All fruits with skins on should be washed and peeled before eating—especially fruits exposed on the streets, and where dust and flies can have access to them. Few are aware of the danger of food contamination by flies. They are great scavengers, and are not at all choosy as to what they eat, nor where they step. They pass at one bound from an infectious carcass, a foul ulcer, or a mass of diseased sputum or reeking filth to the apple, pear, or peach, and with dirty feet and dirty proboscis run over it and contaminate it. Hence all such fruit should be first washed and dried and then pared if possible. Even food to be cooked ought, for cleanliness sake, to be washed if cooked with the skin on.

Fruit is rich in acids that are grateful to the stomach, stimulate the salivary secretion, are grateful to the taste, and aid in digestion. It is foolish for persons to deny themselves the pleasure of eating fruit through fear of infection by microbes or appendicitis because perhaps one in a million persons happens to get a seed in the "appendix." Fruits are among God's good creatures grown for the delight, enjoyment, and physical benefit of rich and poor, prince and peasant.—*Iowa Health Bulletin*.

CRYSTALLIZED BROMINE.—Wicke (*Zeit. Oest. Apoth. Ver.*) has obtained bromine in acicular crystals of dark carmine color similar to those of chronic anhydride, by reducing to 90°C. a concentrated solution of bromine in carbon disulphide.

KOLA..

FRESH Kola

Fresh (UNDRIED) Kola

Fresh (Undried) TRUE AFRICAN

..KOLA

Is a Valuable Drug!

ALL kinds of Kola can't be depended upon, whether they be the various varieties which do not come from Africa, or whether they be the ordinary commercial DRIED nuts which do. We introduced Kola commercially to America, and did it in a fair, ethical manner, advertising it only to the medical and pharmaceutical professions, never to the laity. We were the first (and we believe we are still the only) house to import the fresh (undried) nuts direct from Africa.

Properties of the Kola Nut

Kola now occupies a position of importance, both as food and medicine. Being a conservator of energy, it is ranked as a food; and, possessing special merits in the treatment of debilitated states of the system generally, it has obtained reputation as a medicine.

Our Preparations of Kola

may be depended on to faithfully represent the drug in the fresh (undried) state. We offer the following to the trade:

KOLA-STEARN'S

A special aromatized Fluid Extract of fresh (undried) true African Kola, each minim (drop) representing one grain of fresh Kola Nut. It is the ONLY palatable liquid preparation of fresh (undried) Kola in CONCENTRATED form. Kola-Stearns is put up in 6-ounce bottles (96 doses of one-half teaspoonful) at \$8.00 per dozen.

KOLAVIN (Stearns)

The Original Wine of Kola, prepared from the fresh (undried) true African Kola Nuts. Indicated in cases where a mild alcoholic stimulant in combination with Kola is desired. Kolavin (Stearns) is put up in full 16-ounce bottles at \$8.00 per dozen.

KOLACYLS (Stearns)

A confection made by covering a soft extract of the fresh (undried) true African Kola with a soluble coating of sugar. It is the ideal Kola preparation for bicyclers, pedestrians, athletes, students, etc. Kolacyls (Stearns) are put up in screw-top flasks and sold at \$4.00 per dozen.

The above preparations are sold by all jobbers, or can be ordered direct from

FREDERICK STEARN'S & CO.

Manufacturing Pharmacists,

TROIT, MICH. LONDON, ENG.
NEW YORK CITY.

WINDSOR, ONT.



For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at \$1.00. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.



CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and \$1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton and London, Ont., and Winnipeg, Man.

ELLIOT'S "B" PARCHMENT PAPER

is one of the articles to be considered in the practice of "elegant pharmacy," as it furnishes the finest transparent wrappers for bottles, packages, etc. It must be seen and tried to be appreciated. We send samples.

ELLIOT'S PARCHMENT POWDER PAPERS

are the best for hygroscopic powders and all other powders. The following prices show they are the cheapest:— Put up in Neat Boxes of 500 Sheets.

No.	Rm.	No.	Rm.
22	For Magnesia and general use,	31	Large Seidlitz, Blue, 6 x 6, \$0.50
	White, 6 x 8	40	Powder Papers, White, 2 1/2 x 4, 25
28	Regular Seidlitz, White, 4 1/2 x 5 3/4, 40	41	Powder " " 3 x 4 1/2, 20
29	Regular " Blue, 4 1/2 x 5 3/4, 40	42	Powder " " 2 1/2 x 3 1/4, 25
30	Large " White, 6 x 6, 50	43	Powder " " 3 1/2 x 4 1/2, 25

SEND FOR SAMPLES. Elliot's Parchments are for sale by the leading jobbers. We also make heavy Parchment for Sticky Fly Paper, and Druggists Pure Tin Foil.

A. G. ELLIOT & CO.,

PHILADELPHIA.

If you want to sell the best, handle

MAJORS CEMENT

CHEAP, QUICK, AND CERTAIN.

Repairs China, Glassware, Meerschaum, Bric-a-Brac, to put on cloth, corn and bunion plasters; to hold a bandage on a wound or sore finger. 15c., 25c.

Major's Rubber Cement, 2-oz. bottle, or in collapsible tubes, for repairing rubber boots and shoes, bicycle tires, rubber garments, silk umbrellas, etc. 15c.

Major's Leather Cement repairs boots and shoes, garments and umbrellas of all kinds of material except rubber, applied same as on leather goods. 15c.

Major's Liquid Glue repairs furniture, books. 10c.

KERRY, WATSON & CO.,

351 St. Paul Street,

Sole agents for the Dominion. MONTREAL, Canada

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Hair and Cloth

Tooth and Nail

TEN CASES NEW GOODS JUST IN
WRITE US FOR SAMPLES AND PRICES

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Brush Manufacturers

313 St. Paul Street, - Montreal.

Sovereign . . Lime Fruit Juice

Is the Strongest, Purest, and of Finest Flavor

We are the largest refiners of LIME JUICE
in America, and solicit enquiries.

For Sale in Barrels, Demijohns, and twenty-four ounce Bottles
by wholesale in

TORONTO, HAMILTON, KINGSTON, AND WINNIPEG

SIMSON BROS. & CO., Wholesale Druggists

HALIFAX, N.S.

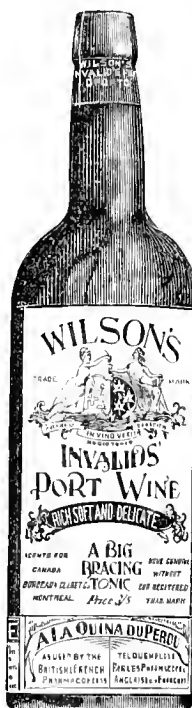


*All
Sensible People
travel
by the*



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TORONTO TICKET OFFICE
IKING ST. EAST.
COR. YONGE STREET.



Sick
Men
Smile



after trying the one
great sure-to-help,
pleasant, and sus-
taining strengthener.

Wilson's
Invalids'
Port

The big bracing tonic.

Physicians swear by it—Sick men
recover by it.

For Sale Everywhere.

75c. PER QUART BOTTLE

AGENTS FOR CANADA:

BORDEAUX CLARET CO.

30 Hospital Street, Montreal.

Pharmacy in England.

Resignation of Professor Atfield. The "Nurseries" Exhibition Bottles, Dispensing and Others A New Powder Insufflator Eucaine and Lactophenine.

(From Our Own Correspondent.)

Resignation is the order of the day. In swift succession I have had to chronicle the retirement of Mr. Schacht, the resignation of Professor Dunstan, the determination of Mr. Carteighe not to be re-elected president of the Pharmaceutical Society after fourteen years in that position, and now Professor John Atfield, F.R.S., has sent in his resignation as Professor of Practical Pharmacy. The idea that the council have in mind of making the Professor of Chemistry, theoretical and practical, also the director of the Research Laboratory is praise-worthy, but will probably be found inconvenient. It is true that by the amalgamation they will be in a position to guarantee a salary of not less than \$3,000 per annum to the professor, but the retirement of Atfield is a great loss to the prestige of the School of Pharmacy at Bloomsbury Square. Since the death of Redwood, the name of Atfield was the principal attraction for students at the premier English school of pharmacy. With a world-wide reputation, both as an investigator and as an author, Atfield was still a name to conjure with. And now, whom have we left? Professor Green is a junior in reputation, although an intellectual giant. Mr. Joseph Ince is within sight of the date when active work will be too much for him, and Professor Greenish is a very young man. If the council had been well advised they would have occupied the next few years in preparing a suitable successor to Professor Atfield, instead of making the bareness of the teaching talent only the more glaring at the present moment. One thing is very certain, if the trouble with Professor Dunstan and his researches on subjects outside of pharmacy teaches anything, it means that a pharmaceutical man must be elected as professor and not an outsider. Will the council appreciate this point? This is the question of the moment.

The "Nurseries" is the appropriate title bestowed upon the exhibition inaugurated by the initiative of the *Nursing Record*. Presumably it was intended to get medical men as well as nurses to visit the exhibition, but this was not very successful. Another mistake is to run such an exhibition for such a length of time as thirteen days. The matter for attraction was not sufficiently large, and every nurse in the metropolis could have visited the exhibition easily within six days, which would have been quite long enough. Allowance must be made for the fact that this is the first attempt at anything of the kind, and if it should be repeated experience will alter all this. Maw, Son & Thompson made a very complete display of instruments, hygienic sundries, and a

useful "Handbook for Nurses." This latter has always seemed to me a model that pharmacists would do well to imitate. On the continent it is by no means unusual for some of the principal chemists to publish similar "handbooks," containing useful hints on the treatment of minor ailments and wounds and a detailed description of the special preparations of the house. Burroughs, Wellcome & Co. had also a good show of their well-known tabloids. Dermatol—the basic gallate of bismuth—is strongly recommended as a dusting powder in eczema, bedsores, etc. Sanitas was prominently displayed by the company, but they are now making other disinfectants besides. This is, I believe, because the Sanitas Company used to lose many a good slice of a contract for disinfectants because carbolic acid or permanganate was not supplied by them. They are anxious to let you know that their faith in Sanitas as the disinfectant *par excellence* is not on the wane because they offer to quote for other disinfectants. Reynolds & Branson, of Leeds, are to be congratulated upon their first appearance at a metropolitan exhibition. Of recent years someone connected with the firm—possibly young Mr. Fred Reynolds—has displayed pretty skill and ingenuity in devising little improvements, such as the hand-charge shoot, the pill-box shoot, enema clips, self-closing dust-proof drawers, etc. Many of these are so simple, and yet so obviously useful and effective, that one only wonders why on earth the idea was not hit upon years ago. Southall Bros. & Barclay are the only other pharmaceutical firm exhibiting, and their space was devoted chiefly to the well-known Sanitary towels.

There is no detail in connection with dispensing that is more important than the style of bottle and label. A chemist who is satisfied with the cheapest containers obtainable, and adopts stock labels, is missing one of the most important details of the calling. The public cannot discriminate between the contents as dispensed at a cheap drug store and that of a leading pharmacist, but superior "finishing off" is appreciable to the meanest intellect. At the West end it has become usual to send all mixtures out in round-cornered bottles, either squares or flats. At Savory and Moore's the round-cornered square is favored, whilst Bell & Co. adopt the round-cornered flat. This style of bottle is certainly superior in appearance to the old dispensing flats and squares, and the varying tints of greens and blues are replaced by what is called the "quinine-tint." For displaying packed goods, such as cod liver oil, etc., this quinine-tinted, round-cornered, flat bottle is one of the best, but it is a mistake to put everything into this kind of bottle. Glycerine, for instance, if perfectly water-white, as it should be, is displayed much better in a white flint panched bottle, but good bottles must be chosen, or the little specks and air-bubbles in inferior flint spoil the brilliancy of the preparation. Labels should be obtained to fit the bottles instead of

stock ones being used. Thus a good sized cod liver oil label looks well on the round-cornered flat, and the appearance is, if anything, improved by its overlapping the sides partly. But a glycerine label should just fit in the front of the bottle and not overlap—if panched bottles are adopted. I am convinced that it pays chemists to have their own special design for important labels, such as dispensing labels and any little proprietary. These should be obtained from a good label printer in the form of a sketch at first, so that the features to which prominence is required may be properly worked out. Then the quality of paper should be good, and a delicate groundwork is a great improvement, especially if it be a contrast color to the general tone of the label.

Messrs. Slater Bros., of Baker street, London, have just shown me a new insufflator that has some striking advantages over the ordinary powder-blowing instrument. The principle employed is that by means of compressed air, obtained from the ordinary double bellows of enemas or atomizers, the powder is blown from a reservoir when the exit is released by a trigger. The operation is therefore something similar to firing a revolver, and the glass barrel of the insufflator is shaped after this fashion. First of all, the bellows are compressed in the usual way until no more air can be pumped in, then the instrument is introduced into the mouth of the patient, or wherever the insufflation is required, and the tube directed at the desired spot. By merely touching a trigger with the index finger the powder is discharged as a momentary explosion, and as only one hand need be employed during the whole time the advantage of this form of insufflator is obvious. For iodoform blowing, etc., it will be found the most useful instrument yet suggested, and I understand that the apparatus has been patented. Messrs. Slater represent in England Messrs. Ellis & Gottermann, of New York, whose atomizers, fountain syringes, etc., are widely known.

Among the new remedies that are being somewhat largely employed by medical men in London just now, special prominence must be given to eucaine and lactophenine. Eucaine is the threatened rival to cocaine, but it is just possible that cocaine may outlive its rival. The new anæsthetic is stated to be equal to cocaine in its local effects, whilst absolutely its superior in not affecting the heart or producing unpleasant after effects. So far it has been tried chiefly in dental practice, and 20 to 60 minims injected of a 15 per cent. solution. In this proportion it is only soluble in warm water. Eucaine is offered cheaper than cocaine, and as it is a synthetical body it is probable that our German friends are not giving it away at the price of \$2.50 per ounce. Lactophenine appears to have some advantages over antipyrine and antifebrin, inasmuch as besides its antipyretic, antineuralgic, and antirheumatic action it has a marked soothing, hypnotic effect. Even children

can take it without unpleasant results and in febrile diseases, especially in typhoid, it has given satisfaction. The ordinary dose is 8 to 15 grains, but 60 grains *per diem* have not produced injurious after-effects.

Last year Messrs. Greeff & Co. exhibited Airol—a gallate of bismuth iodide—at the meeting of the British Medical Association, and they are just now pushing it, on the strength of a pamphlet containing English medical opinion. The presence of iodine in the compound with bismuth is of special value as an antiseptic and deodorizer. Its superiority to iodoform is claimed chiefly on the ground that it is practically odorless, that it is much lighter, being about four times as voluminous as iodoform powder, whilst the presence of the gallic acid part of the compound gives it a superior desiccative and astringent action. As a dusting powder for ulcerated legs, and in the dry-dressing treatment of wounds, several doctors speak highly of airol. No ill-effects have occurred from its use, as now and again have happened with iodoform, whilst in better class practices, where the use of the latter drug is strongly objected to, it has been found a very efficient substitute. It is advisable to remember that airol does not keep well in ointments, being gradually decomposed, but an emulsion in glycerine and water keeps well and is easily employed.

Pharmaceutical Examinations.

The preliminary Board of Examiners held their quarterly examinations for students entering the study of pharmacy in Montreal and Quebec on Thursday last, when twenty candidates presented themselves in Montreal and five in Quebec. Of these the following candidates passed, and are named in order of merit, namely, J. Fotheringham, Joseph P. Dobbins, J. R. Laurier, and J. C. Deneault.

Mr. J. E. Crack passed upon all subjects but geography, which subject he will require to be examined upon at the next examination. The remainder of the candidates are referred back for further study.

The examiners were Prof. A. Leblond de Brumath, and Prof. Isaac Gammell, Montreal, with Mr. J. Emile Roy as supervisor in Quebec.

The next examination will be held on October 1st, intending candidates being required to give the secretary, Mr. Muir, ten days' previous notice.

Missouri Pharmaceutical Association.

The Missouri Pharmaceutical Association held its eighteenth annual meeting at Excelsior Springs, June 9, 10, 11, and 12.

President J. M. Love, of Kansas City, was in the chair. His annual address cautioned the druggists against losing sight of the commercial side of their occupation, but urged them to push for-

ward in the profession and become known as pharmacists in the true sense. He implored them to keep up national, state, and local organizations, and spoke a good word for the American Pharmaceutical Association. The Pharmacopœia was pointed out as the official guide, and the National Formulary was duly noticed. A fitting tribute was paid to the memory of the late Dr. Charles O. Curtman. The association was cautioned against over-zealous efforts for legislation, but requested to ask for a law requiring proprietary preparations, foods and medicines, to have on the label a guarantee from the manufacturer as to the length of time the preparation will keep in good condition. The president favored free alcohol in pharmacy. Continued interest and support for the Board of Pharmacy was asked, and several other timely suggestions made.

Secretary H. M. Whelpley reported a membership list of 674.

Treasurer E. G. Orear reported a balance of \$84.25.

A. S. Forker, chairman of the Committee on Membership, reported twenty-two new names.

The following papers were read and discussed: "Process for Spirit of Nitrous Ether, with Practical Demonstration," by Professor David Walker, of Kansas City; "What Shall we do to Induce the Druggists to become Members of and Attend the Meeting of the American Pharmaceutical Association and the Medical Pharmaceutical Association?" by A. N. Doerschuk, of Kansas City; "How to Prevent the Cutting of Prices on Patent and Proprietary Medicines," by T. A. Moseley, of Harrisonville; "Semi-Proprietary, or so-called Elegant Preparations," by C. E. Corcoran, of Kansas City; "The Future of Pharmacy in the United States," by A. N. Doerschuk, of Kansas City; "The Professional and Business Aspects of Pharmacy," by T. A. Moseley, of Harrisonville; "Semi-Proprietary, or so-called Elegant Preparations," by R. J. Brown, of Leavenworth, Kansas; "Semi-Proprietary, or so-called Elegant Preparations," by J. M. Love, of Kansas City; "Hints for the Benefit of the Medical Pharmaceutical Association," by Ambrose Mueller, of St. Louis; "Problems in Organic Chemistry," by Prof. J. M. Good, of St. Louis; "Eighteen Years of Pharmaceutical Reminiscences in Missouri," by F. R. Dimmitt, of Kansas City; "Methods of Detecting Drug Adulterations, with Illustrations," by Prof. Francis Hemm, of St. Louis; "A New Method of Preserving Fruits and Flowers," by John Wright, of Indianapolis, Ind.

Prizes were awarded for papers as follows: Francis Hemm, \$10 in gold, from the J. S. Merrell Drug Company; A. N. Doerschuk, \$5 in gold, from the J. S. Merrell Drug Company, also a Sponge Case from Woodward, Faxon & Company; Ambrose Mueller, a copy of the Era Formulary, from the publisher; David Walker, one dozen Listerine, from the manufac-

turer; C. E. Corcoran, one pair fine counter scales, from Henry Troemner, also fifty pounds of glycerine from W. J. M. Gordon; J. M. Love, \$5 in gold, from the J. S. Merrell Drug Company; J. M. Good, copy of the United States Dispensatory, from the Meyer Brothers' Druggist.

George C. Bartells, of Camp Point, reported as a delegate from the Illinois Association, and S. C. Wilson, of Lincoln, from the Nebraska Association.

The association adopted a resolution urging all institutions teaching pharmacy to require satisfactory evidence from each applicant for the degree of Ph.G., showing at least four years time served in a drug store under the direction of a competent pharmacist.

Meramec Highlands, June 22, 1897, was selected as the place and time for the next annual meeting.

The Memorial Committee presented appropriate resolutions to the memories of Drs. Charles O. Curtman and C. C. Hamilton.

Francis Hemm, chairman of the Committee on Drug Adulterations, made a lengthy report, showing that the quality of the drugs in Missouri is better than formerly.

William Mittelbach, chairman of the Committee on the United States Pharmacopœia, presented a lengthy report full of practical recommendations.

R. E. Maupin, chairman of the Committee on Legislation, made an extended report.

F. A. Faxon, chairman of the Committee on Trade Interests, made a verbal report, in which he stated that the retail druggists are much to blame for the demoralized condition of trade on account of their voluntary cutting of prices.

The Missouri Pharmaceutical Travelers' Association held a successful meeting and contributed largely to the amusement feature of the Medical Pharmaceutical Association Convention. W. E. Berryman, of the Meyer Brothers Drug Company, was elected president, and A. S. Forker, of the Evans-Gallagher Drug Company, secretary and treasurer.

The following officers were elected: President, Eugene Soper, St. Joseph; first vice-president, F. W. Sennewald, St. Louis; second vice-president, Dr. D. K. Morton, Missouri City; third vice-president, W. R. Scheldrup, Pierce City; secretary, Dr. H. M. Whelpley, St. Louis; treasurer, William Mittelbach, Boonville; assistant secretary, Ambrose Mueller, St. Louis; local secretary, Thomas Layton, St. Louis. Members of the Council: J. M. Good, of St. Louis; J. M. Love, of Kansas City; R. E. Maupin, of Pattonsburg; C. E. Corcoran, of Kansas City; and Miss Fredrica De Wyl, of Jefferson City.

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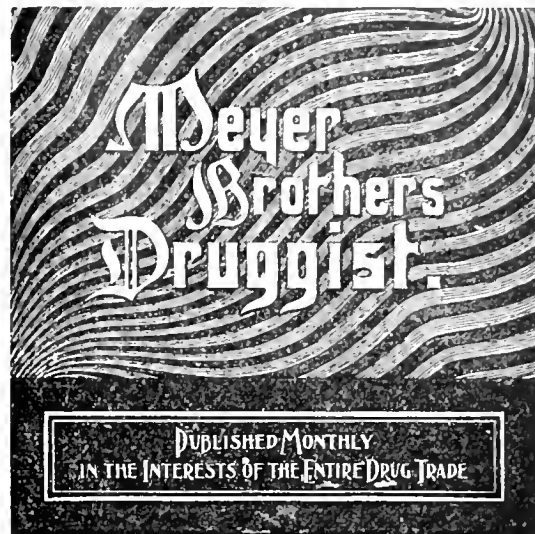
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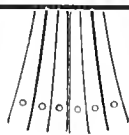
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Toilet Requisites.

Of all the articles that druggists sell no class of preparations are in greater demand than toilet preparations. Many druggists prepare a line, or perhaps only one or two, of such preparations. When nicely made and neatly put up they add greatly to the reputation of the druggist, as well as to the profits of the business. The following are in demand as toilet requisites, and it will pay druggists to put up the whole line.

IMPERIAL LOTION.

Spirits of camphor.....	2 fl. dr.
Carbolic acid.....	2 dr.
Alum, in powder.....	2 dr.
Glycerin.....	10 fl. oz.
Distilled witch hazel.....	20 fl. oz.
Essence rose, q.s.	

Mix, dissolve, and filter clear.

The essence rose may be made by dissolving 5 drops oil of rose in 1 ounce cologne spirits. This amount should be used for the above quantity. One ounce bulk rose perfume may be used instead.

IMPERIAL MOTH AND FRECKLE LOTION.

Solution of hydrogen dioxide....	8 oz.
Distilled witch hazel.....	16 oz.
Orange flower, or rose water....	8 oz.

Mix them.

The solution of hydrogen dioxide or peroxide may be the U.S.P., Marchand's, or any other reliable make. This preparation is an excellent application for moth and freckles, with which so many ladies are afflicted, and has only to be shown to sell.

IMPERIAL FACE BLEACH.

Mercury bichloride, in powder....	60 gr.
Calomel.....	4 oz.
Cologne spirit.....	4 fl. oz.
Water.....	20 fl. oz.
Glycerin.....	6 fl. oz.
Essence bitter almonds.....	4 fl. dr.

Dissolve the mercury bichloride in the cologne spirit, mix with the water, glycerin, and essence of almonds and add the calomel.

When applied to be well shaken.

IMPERIAL VELVET CREAM.

Flake white.....	4 oz.
Glycerin.....	1½ fl. oz.
Rose water, sufficient to make....	32 fl. oz.

Orange flower water or bitter almond water may be used instead of rose water.

The flake white should be rubbed to a smooth paste with the glycerin and a portion of the water, and the remainder of the water added. It must be thoroughly mixed before pouring into bottles, so that each bottle may have the proper amount of flake white.

This is a regular "white wash" for the complexion. It sticks well, and is similar to "Magnolia Balm" and other preparations of that kind.

IMPERIAL MALLOW CREAM.

Bitter almonds, blanched and rubbed very fine in a mortar.....	2 oz.
Borax.....	½ oz.
Tincture of benzoin.....	2 oz.
Glycerin.....	4 oz.
Rose water, bitter almond water, or orange flower water.....	24 oz.

The tincture of benzoin is to be put in a half-gallon bottle arranged with a funnel with a very small hole through the cork in the neck, so that a liquid will flow drop by drop. The rose water, or other water, is to be poured in the funnel and allowed to drop into the tincture of benzoin. When all the flavored water has been added, the other ingredients are to be added and the mixture thoroughly shaken. It should then be poured through a sieve or a coarse cloth strainer, and mixed well before bottling. It is to be applied with a soft sponge or cloth and allowed to dry on.

This is excellent for softening the skin, removing pimples, healing eruptions, etc.

IMPERIAL FROST-CREAM.

Quince seed.....	1 oz.
Borax, in powder.....	120 grains.
Hot water.....	24 fl. oz.
Glycerin.....	6 fl. oz.
Cologne.....	2 fl. oz.
Bulk perfume additional if desired.	

The quince seeds are to be crushed and macerated with hot water for several hours, stirring frequently; then strained without pressure through cheese cloth, the glycerin added, and the mixture then added slowly to the cologne, contained in a quart bottle, with frequent agitation, and thoroughly mixed. This makes a smooth, bland preparation, similar to Fragrant Cream. It is a good seller.

IMPERIAL HAIR TONIC.

Quinine sulphate.....	60 grains.
Tincture cantharides.....	2 fl. oz.
Tincture orris root.....	2 fl. oz.
Imperial cologne, or other good cologne.....	8 fl. oz.
Cologne spirit.....	8 fl. oz.
Glycerin.....	5 fl. oz.
Oil bergamot.....	20 drops
Oil angelica.....	10 drops
Oil Cassia.....	5 drops
Oil rose geranium.....	15 drops
Water.....	8 fl. oz.
Tincture cudbear, or archil, q. s. to color bright red.	

Dissolve the oils and the quinine in the cologne and cologne spirit and add the tinctures, coloring, and water; filter clear.

The coloring may be added as desired to make a bright red color.

IMPERIAL TOOTH WASH.

Soap bark, in coarse powder....	6 oz.
Orris root, in coarse powder....	3 oz.
Alkanet root.....	½ oz.
Oil of wintergreen.....	2 fl. dr.
Oil of cloves.....	15 minims.
Oil of cassia.....	20 minims.
Glycerin.....	4 fl. oz.
Cologne spirit.....	16 fl. oz.
Water, enough to make.....	2 pints.

Moisten and macerate the drugs with eight ounces of the cologne spirit mixed with eight ounces of water; after standing three or four days percolate, adding through the percolator first the remaining cologne spirit mixed with eight ounces of water, and then continuing the percolation with water until 28 ounces of the percolate are obtained. Dissolve the oils in half an ounce of the cologne spirit, then add the glycerin, and, after standing, filter.—*B. Fennell, in The Formulary.*

The New Chemistry.

At the Royal Institution, Professor Dewar gave a most interesting talk on the wonders of high temperature chemistry and the marvels of acetylene gas. As the result of a complicated laboratory product acetylene has been known for many years, but its manufacture was confined to laboratory experiments only available for chemists with practically unlimited means and of great skill. The discovery of the electric furnace, however, has opened new possibilities to the chemist, and many other amazing results besides acetylene gas have been brought easily within the range of commercial industry. Heretofore the highest temperature attainable by science was that of the oxyhydrogen blowpipe, which made so fierce a flame that many of the rebellious minerals and metals succumbed to its potency. The most refractory of all metals, platinum, succumbed to its persuasive temperature, as did many other contumacious elements. By means of a few pounds of coal and water transformed into the dominant force of electricity, science found itself armed with another 1,000 degrees of temperature from 2,600 they jumped at once to 3,600 degrees. By the vast potentiality of this increase of heat a new chemistry was given to the world. A class of chemical products, the importance of which we have but just begun to realize, is now made easily productive; these are known as carbides, known before, but far outside the range of commercial value. We may liken the new chemistry to the soluble power of water; water in its solid state has but little potency as a solvent; convert it into its liquid form and it has greater powers of solution than any other liquid; by adding successive degrees of heat its solvency is increased. It is so with minerals and metals. As a solid a metal is relatively inert, but bring it once into its liquid condition and its range of power in uniting with other elements becomes almost indefinitely extended. Under the enormous temperature now available in the electric furnace, metals heretofore unmanageable combine with minerals or chemical elements, forming combinations which heretofore have been mainly hypothetical. The metallic base of lime, calcium, under the temperature of the electric arc, forms a new union with carbon, and calcium carbide is the result. Drop calcium carbide into water, and the elemental union formed under the terrific temperature of the vaporizing point of carbon, 3,600 degrees, evolves acetylene gas.

It was to show some of the more recondite qualities of this gas that Prof. Dewar illustrated his remarks by marvelous experiments. He showed how this strange Protean product of hydrogen and carbon in its gaseous form would unite with metals—copper, silver, and others; he showed us how, by the admixture of a molecule more or less of other elements,

not only one but many groups of chemical compounds foreshadowed the manufacture commercially of a great range of natural products; how petroleum—true petroleum such as we extract from the earth—could be made directly from acetylene gas; how it could be transformed by adding a molecule of nitrogen into prussic acid, and that from this most potent of all poisons other groups of chemicals could be manufactured. From the entire range of coal tar products with their almost infinite possibilities, such as the aniline dyes and medicines, other industrial products were made possible by the dynamics of the new chemistry. He stated, as the latest news from America, more interesting and valuable far than even the possible solution of the Venezuelan question, how the probabilities were that by the cheap power of Niagara calcium carbide might be made at a cost not to exceed £5 per ton, with still further probabilities in the reduction of the cost in the future. Leaving the matter of acetylene gas, Professor Dewar gave us still further instruction, illustrating by experiments all the possibilities of the new high temperature chemistry. He showed us a new chemical product which he had just received from the United States, carborundum, harder almost than the diamond, the crystalline carbide of silicon, the base of flint, a product as much harder than flint as flint is harder than common window glass, possibly even more than that—a new abrasive by which grinding and polishing of the most refractory metals is now made easy.

One of the most curious experiments he tried was the fusing of a mass of copper in a crucible. This was quickly accomplished by means of the electric furnace; to that was added large pieces of cold aluminium. One would suppose that the introduction of a cold metal to a mass of melted copper would have frozen it up, so to speak; that it would at least have extracted the heat; but, on the contrary, the more of the cold aluminium the professor added to the molten copper the hotter it got, till it glowed with an intensity even greater than when it was extracted from the fervent embrace of the electric arc. In the union of the alloy aluminium and copper a fierce potentiality of heat was actually developed greater than that of the melted copper. Queer, isn't it?

Another exquisite experiment with which he delighted our eyes was the action of the electric spark on acetylene gas. Although the terrific heat of 3,600 deg. is required to manufacture the substance from which this gas is made, the gas when produced will not stand any such temperature at all. In a glass vessel filled with acetylene he introduced a little electric arc, throwing the result upon a screen by means of a lens. As the spark passed from the one pole to the other through the gas, instantly were formed great particles of carbon, floating in grotesque shapes in the pure gas till

the holder was filled with the feathery filaments, which rapidly formed a carbon bridge between the poles, and carried the current without forming a spark. He showed us also the acetylene gas forming a solid, which he extracted from the tube in which it was made, a substance very like paraffin wax. Curiously enough, unless great pressure is applied it will not assume a liquid form, but under the atmospheric pressure freezes directly from the gas before becoming liquid. This frozen acetylene he threw into a vat of water and lighted it with a taper, when it burned with a brilliant but smoky flame until consumed. The wonders of the elements which go to make up our material world are more fascinating matters than any possible volume of fiction. Our sense of the marvellous is not only developed, but gratified to the fullest extent. Each month we live in this scientific age adds not only to our actual knowledge, but to the possibilities of acquiring knowledge. It seems as though we were within easy reach already of grasping the last of Nature's laws, and he is bold, indeed, who will doubt that the great problem of life and existence is not possible of solution by the exact sciences.—*Manufacturing Chemist.*

The Smatterer in Pharmacy.

By WILLIAM E. THOMPSON.

The dictionary defines a "smattering fellow" as one who does nothing thoroughly. We meet with many types of this class in our daily observations, and we notice that trades and occupations and arts are much afflicted with the genus. In many cases "botchy" work does and will pass by, escaping a close, rather than a critical, inspection; but in any and all labor and skill which demand thoroughness this individual is never "in it" with credit. This fact is more especially true of an occupation which is conspicuously prominent in painstaking care, in accuracy, in nicety, and in exactness of detail, such as is that of pharmacy. All these general attributes of habit constitute so important a part of the daily practice that they can hardly be said to be even secondary or subordinate to the prime essentials of education, i.e., knowledge and skill. The character and individuality of a man is always clearly discerned in his work, and this, while it may fail to elicit the expressed commendation of some, does not fail of being observed by others. For an instance, let us take that bottle of medicine, which is to be found in every household in the land—whether it be the special prescription or some familiar domestic remedy—it should come to the hands of the sick bearing all the external evidences, not only of responsible authenticity, but an absolute correctness in the individual work and care which prepared it. This is the education of which we have spoken, and which the "smatterer" never has, and can, therefore, never exercise. Let us criticize this bottle yet

further. The sensible property of the contents, not being positive, may be obscure to us, but we will assume that it is a correct compound. First, observe the cork; is it well adapted? size just what it should be? has some regard been paid to its quality, and to the fact that its use will be extended for some time? or has an attempt been made to utilize one too large, or too small, with a result that is likely to provoke both patience and patient? Note next the general neatness, trimming, and superscription on the label—is the handwriting what it should especially be—clear, distinct, perspicuous, filling the allotted blank space with lines shapely written? Is there no bad English in it, and possibly no bad grammar? Is date and numerical notation distinct? Now, as to the bottle itself, is the surface cleanly and all cracks and abrasions carefully avoided?

This simple illustration of the detail which pertains to the duty of the exact as well as the careless man may appear to some of your readers trifling, and in others excite but a derisive smile; but instances abound to prove that little things are equally the stamps of character, and that attention to these has led to business fame and fortune. If a high standard of accuracy becomes an habitual practice, then, indeed, we have an apothecary worthy of the name—the fame will assuredly follow. This is the education of which we speak, and which the "smatterer," not possessing, can never exercise. It belongs wholly and exclusively to the practice and experience of good systematic shop-teaching. It can never be acquired under any college instruction. It is vain, delusive, and deceptive to expect it or promise it. We have only casually referred to the prime essential of the apothecary's education, namely, that of its comprehensive and varied character, with skill and art in a high degree, which can be attained only by the experience and study of years. A good foundation for it, however, must be laid in youth. The man of science ought, perforce, to be a man of liberal education. The apothecary of fact ought to be as well informed as the apothecary of fiction. For we are told of a certain apothecary in fiction whose education was the means of his fortune and his preferment. Thackeray introduces the hero of his novel, John Pendennis, as the little apothecary who, although he sold a pennyworth of salts and a cake of fragrant Windsor soap to the casual customer, as well as brown paper plaster to the farmer's wife, yet was a gentleman of good education, gaining the esteem of all his patrons, and the confidence of the wealthy and influential. This man ultimately, according to the well-told story, became very comfortable in his circumstances, if not actually rich—*nous verrons!*—*Alumni Report, O.C.P.*

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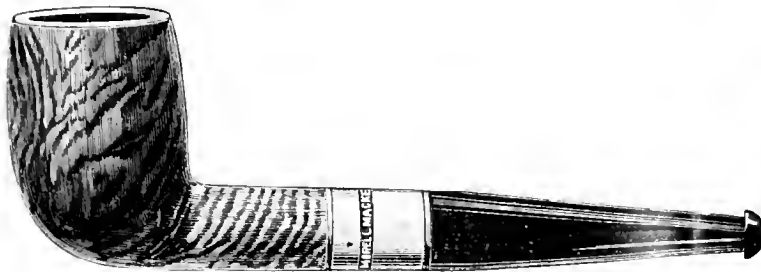
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The Making of Tablets.

By FRANK EDEL, Des Moines, Ia.

For many years compressed tablets have grown in popularity until they have become an important item in the sales of every pharmacy. They have recommended themselves to the physician because of their accuracy of dosage and convenience, and these are probably the main reasons for their popularity.

The increasing sale of these goods tends, however, to make the pharmacist more and more dependent on the manufacturer, for but few pharmacists make the tablets they sell.

Why is this so? Is there no money in making compressed tablets? Is the preparation of compressed tablets so difficult as to deter any intelligent pharmacist from making them?

The reason why so few pharmacists prepare their tablets is due probably more largely to a lack of information concerning their mode of preparation than to any other cause, for there is nothing about the preparation of compressed tablets which should deter any pharmacist from preparing his own tablets.

As to the question of profit in making them, does anyone suppose for an instant that so much capital would be invested in plants devoted to their manufacture if it was not profitable to make them? The writer can say from experience that any intelligent pharmacist can prepare these goods in first-class manner, and as he may need them, and not be compelled to carry in stock the many different kinds now in demand. I have never felt kindly towards the idea of a pharmacist buying supplies that he can make himself. This tendency of modern pharmacists to depend on others for laboratory products that they can make themselves is one of the main reasons for the decreased profits we hear so much about.

If the pharmacist will prepare himself to produce his own tablets and give the physician to understand that he will make any combination that the physician may desire, he will find that the sale of tablets will become a source of more profit than if he lent himself to the sale of the ready-made tablets of the market.

In order to make nice tablets the substances to be compressed must be carefully prepared. Not only is this necessary, but the machine used to compress them must be kept scrupulously clean, the dies must be smooth and polished, and free from rust. With a rough die it is utterly impossible to make smooth tablets, and not only is this so, but the material will stick to dies. The dies never should be cleaned with any hard instrument, but with a damp cloth, and then carefully dried and rubbed with cloth slightly greased with petrolatum. If the machine is to be laid aside, the moulds and die and nickel-plated part should be covered with petrolatum; this is absolutely necessary in order to prevent rusting.

When the dies become roughened, as

they will from constant use, they should be carefully polished and made smooth by means of emery flour and oil. This can best be done in a lathe, but can be done by hand. If done by hand a piece of wood should be made of such shape as to fit the face of die, and this used to polish with in using the emery flour. It takes more time than working with a lathe, but the work can be nicely done in this manner. The smoother and more perfect the surface of the dies, the less trouble will be had with material adhering to dies, and the smoother and more perfect the tablet. It can, then, be readily seen that too much attention cannot be given to the care of the moulds and dies.

While some materials compress readily without any special treatment, this is far from the rule. Some chemicals already in granular form are readily made into tablets; by far the greater number, however, must be specially prepared before they can be successfully compressed. It is necessary to add some adhesive to many substances and combinations before they can be successfully compressed.

The adhesives usually used are powdered acacia, powdered sugar, starch, and glucose. Glucose is only used where it is desired to prepare hard tablets for slow solution in the mouth. Prof. Coblenz, in his "Handbook of Pharmacy," says that there are few substances which cannot be successfully compressed after being mixed with five per cent. powdered acacia and ten per cent. powdered sugar. My own experience has fully demonstrated to my mind the utility of this as a general formula.

It should be the aim in preparing tablets to make them as soluble as possible. Tablets made with sugar as an adhesive are more soluble than those made with acacia or even acacia and sugar. Starch is also used to make tablets soluble, but is hardly as advisable as sugar. It has the advantage of taking up a considerable quantity of liquids, and on this account is very useful in such tablets as contain these in such quantities as to be objectionable if made with sugar alone. Powdered acacia should be used in all combinations of a hygroscopic nature.

Some have recommended, in order to insure more ready disintegration of the tablet, that small quantities of bicarbonate soda and either tartaric acid or citric acid be worked into the tablet.

While this would increase the solubility of the tablet and be very desirable in some instances, it has the disadvantage that, in order to incorporate it, the material must have different treatment from regular tablet material in order to prevent the action of the acid and soda before the tablet is made, and then defeat the purpose for which it is added. Again, tablets thus made, if not carefully kept from the air, do not keep. However, the writer believes that in some tablets which are naturally slow of solution it has much in its favor. It is only intend-

ed to use these in very small quantities, not to produce effervescence, but make the tablet disintegrate by the action of the acid in the soda when taken into the stomach.

It has been found that a fine powder does not compress as nicely nor feed as evenly as a coarse one, and on this account it is necessary to carefully granulate the material to be compressed. This is done by carefully mixing the powder and moistening, then passing through a No. 20 sieve and drying, then passing through sieve again. Water is generally used to moisten, although alcohol and solution of glucose are sometimes used. The powder must not be moist enough to stick to sieve. A tinned iron sieve is recommended, but if it were possible to get a tinned brass sieve it would be much better.

It is necessary to have the granulated material thoroughly dry before compressing. If the granulating has been carefully done and the material well dried, it will often be found unnecessary to add any substance to keep the material from sticking to the dies.

LUBRICANTS.

In the great majority of instances, however, it is necessary to add some substance to the granulated material to prevent the powder from adhering to dies. White vaseline, powdered talcum, and powdered boric acid are the substances usually used. The vaseline is best used as a two per cent. solution in ether with an atomizer. The material is granulated and dried, then sprayed with the solution vaseline, and mixed on a paper or stirred with spatula and dried. It is then passed through sieve. If powdered talcum is used it should be added to the dry granulated material, and stirred with spatula, or mixed on a paper, or it can be added to the dried granulated material in a wide-mouth bottle and mixed by agitation. Not to exceed three per cent. (of the weight of the granulated material) of powdered talcum should be used.

Boric acid is used in the same manner as talcum, but not to exceed two per cent. should be used. It is only used in making those tablets where a perfect solution in water is desired, such as in hypodermic tablets.

Sometimes it is necessary to use both vaseline and talcum; the talcum is then added last, after the vaseline, and not until the powder is dry, when it is mixed as directed above.

In preparing tablets it is a mistake to apply too much pressure; only as much pressure as is absolutely needed should be used. Never try to compress a moist powder, for it will stick to dies and not be satisfactory. Do not use any more lubricant than is absolutely necessary.—*The Spatula.*

The oldest United States college is Harvard, founded in 1636.

Homœopathic Pharmacy.*

PREPARATION OF POTENCIES.

The homœopathic pharmaceutical practice, triturating and diluting of mother tinctures, is named subtilization or potentializing. This work is done according to two scales, the centesimal and the decimal. The centesimal scale was introduced by Hahnemann. Its principle is that the first potency must contain $\frac{1}{100}$ part of the strength of the remedy, and each following $\frac{1}{100}$ part of the preceding. Inasmuch as the mother tinctures are prepared after different directions, the medicinal strength of the diluted tincture or triturated powder must become unequal. The centesimal scale is known as the German scale; the second is the French or decimal scale. The first potency contains $\frac{1}{10}$ part of the strength of the remedy, while the following potencies are prepared each with 10 drops, or quotas, of the remedy to 99 drops of the neutral substance, of alcohol.

In order to make the first dilution according to Hahnemann, 1 drop of the mother-tincture has to be mixed with 99 drops of alcohol = 100 drops. Second dilution = 1 drop of the former to 99 drops of alcohol, etc.

Liquid substances must be potentialized in a room protected from the sunlight. Potencies must never be filtered. The name of the remedy and the number of the potency must be written on the cork. Centesimal potencies are marked by the letter C; decimal potencies with the letter D, or simply with the Latin numbers I, II, III, etc.

IN THE CENTESIMAL SCALE UP TO THE THIRTIETH POTENCY.

All bottles are to be placed in a row before the operator and then by means of the measure-glass supplied with the number of drops of alcohol prescribed in the respective directions, care being taken that the measure-glass is well emptied and the bottles afterward well corked. The bottles used for this purpose should be round, with broad, plain mouth, the edges smooth and not turned in or out. The bottles must be large enough to contain double the quantity of what is therein potentialized. Then the exact number of drops of the tincture or essence as prescribed is dropped into the glass bottle, which is marked for the first potency; the bottle is thereupon firmly corked and shaken with 10 vigorous jerks of the arm. C 1 is the label on the cork. Then one drop of this mixture is dropped into the next bottle, which is shaken as already described for bottle C 1. From this second potency one drop is added to C 3, which is treated in the same way as the two former potencies. In this way the potentializing is continued to the last bottle; one drop of the previous potency being always added to the next following bottle.

For the decimal scale the corks are marked D 1, D 2, D 3, etc., or I, II, III, etc., numbered from I to XXX. The operator has to take 90 drops of alcohol to 10 drops of mother-tincture for I, then shake with 10 vigorous jerks of the arm; 10 drops from I being added to II, 10 drops of II being added to III, and so on until No. XXX is reached.

POTENTIALIZING OF DRY SUBSTANCES TO THE THIRD CENTESIMAL AND SIXTH DECIMAL POTENCY.

Dry substances, the medicinal strength of which must be first developed by trituration with sugar of milk, and to be worked up in a warm and dry atmosphere.

CENTESIMAL SCALE.

One grain of the drug is rubbed with 33 grains of sugar of milk for 6 minutes, scraped together (mortar and pestle must be unglazed) for 2 minutes, then 33 grains of sugar of milk added; repeat the operation; after 6 minutes scrape again for 4 minutes, add 33 grains of sugar of milk. Now work it up a third time, also 6 minutes rubbing and 6 minutes scraping. This is the first trituration or dry potency, C 1 d. To get the second trituration take 1 grain of C 1 d and incorporate it into 99 grains of sugar of milk according to the previous rules, C 2 d. In like manner the third trituration is prepared with one grain of the second. The triturating must be done with force, yet not so much as to cause the sugar of milk to adhere too strongly to the mortar as to prevent removal within 2, 4, or 6 minutes.

DECIMAL SCALE.

For triturating according to the decimal scale the same process as just described is pursued, the only difference being that 10 parts of the crude medicine are triturated first with 30 parts of sugar of milk twice for six minutes, with 6 minutes interval for scraping, then another addition of 30 parts of sugar of milk is made, and the whole manipulated exactly as before. This forms the first trituration, D 1 d, or I d; 10 parts of I d is in the former way well mixed with 90 parts of sugar of milk; it forms the II d, or D 2 d, and this procedure is continued up to the sixth trituration.

POTENTIALIZING OF THE THIRD CENTESIMAL AND SIXTH DECIMAL TRITURATIONS.

The medicinal substances which have been triturated after the centesimal scale up to the third, and after the decimal scale up to the sixth, potency are so subtilized that they may be mixed with alcohol or water and thus much higher potentialized.

FOR THE CENTESIMAL SCALE

make a solution of this trituration or bring the potentialized powder into a fluid state, in which its degree of potency may be carried further. To 1 grain of the third trituration are therefore added with the

measure-glass 50 drops of distilled water, and by a few turns of the bottle on its axis slightly dissolved; then 50 drops of alcohol are added, and the bottle, which ought to be large enough to leave a third of its space empty, is ten times shaken (that is with ten jerks of the arm). This is the fourth potency, C 4 d. One drop of this potency is mixed with 99 drops of strong alcohol, and the mixture, well corked, shaken with ten jerks of the arm, which gives the fifth potency, C 5 d. The next potencies up to the thirtieth are prepared each with 1 drop of the preceding one to 99 drops of strong alcohol and shaken with ten jerks of the arm, C 30 d. The letter d shows the potentializing out of the trituration.

DECIMAL SCALE.

Dry medicinal substances are prepared in different ways for the decimal scale up to the thirtieth potency, as some medical men who use these preparations prescribe the higher potencies in the liquid form, whilst others use the decimal triturations up to the thirtieth.

For dry potencies up to the thirtieth, 10 parts dry drug are treated with 30 grains of sugar of milk 3 times, as previously described. D I d, or I d; I d 10 parts with 90 parts of sugar of milk II d, etc., until XXX.

For liquid potencies up to XXX, one grain of the sixth trituration is dissolved in a small glass bottle in 50 drops of distilled water; 50 drops of strong alcohol are then added and the bottle shaken with ten jerks of the arm. This is the 8th potency, VIII d. The seventh would be not in keeping with the rules for this scale, proportion (1:9). Ten drops of the VIII d with 90 drops of *diluted* alcohol are shaken ten times for the ninth IX d; ten drops of this last with 90 drops of strong alcohol gives X d. From X d until XXX and higher the potentializing has to be performed with strong alcohol.

GLOBULE POTENCIES.

The moistening of the globules with the potencies is done in a glass bottle, not too small, filled two thirds with globules; the potency is dropped intact, the bottle corked and shaken so that all the globules are equally moistened. The bottle is then turned upside down and left standing 10 hours; after this time the cork is loosened a little to allow the liquid in the neck of the bottle to escape. The globules are in few days completely dry and ready for filling smaller bottles. Diluted alcoholic potencies are not to be used to moisten globules; so that if the lower potencies are required for this purpose, they must be freshly prepared with strong alcohol. Another method is to put the globules into a china cup; enough drops of the potency are added so that the fluid may drain the globules to the bottom, having moistened all the globules in a minute. The cup is then turned over on a piece of clean, dry blotting paper, to absorb the superfluous liquid, and the

* Monatsblatt.

globules spread out. When dry, they are filled in glass bottles, corked and labelled with the name of the contents and Arabian number of the potency.

We see immediately that this moistening business is wrong; the physician is absolutely unable to control the dose. I proposed thirty years ago to change this method and introduce into the Pharmacopœia homœopathica the following change according to the scale of globules.

Moisten 1,000 globules equal to one gramme with 20 drops of a potency prepared with absolute alcohol in a bottle several times during the day, make slight motion with the bottle, lay the bottle over night and keep it corked, the next morning remove the cork, close the mouth with chemically pure cotton and allow the alcohol to escape, turning the bottle around its long axis. In this way we can exactly count up the quantity of medical substance in each globule.

This counting can be conducted *ad infinitum* with every potency, and such operation saves the homœopathic physicians from the stigma of humbug, which they cannot evade in following Hahnemann's method of operation, because they are absolutely unable to give an estimation of the dose they are prescribing.

HOMŒOPATHIC NOMENCLATURE.

In all cases where only one species of the genus of a plant is officinal, the remedy bears the name of the species; instead of *Aconitum Napellus* only *Aconitum*; of *Atropa Belladonna* only *Belladonna*. If another plant of the same species should enter in the homœopathic pharmacopœia, it would receive the significant addition.

The elementary substances have on the label in addition to the name the following numbers: Minerals, Chemicals o. Mother-tinctures, Essences o.

Liquid potencies are distinguished by Dil.; triturations by Tr.; in addition it is denoted C, or D, or I, II with d. For instance *Calcarea* (Tr. II), (Tr. C 3), (Dil. NH d). *Aconit.* Dil. C 5, DV, V.

Generally in medical prescription the height of a potency is expressed for C-scale by the Arabian numbers; for D scale by the Latin numbers.

Hahnemann's prescriptions when numbered by Latin numbers express the following height of potency:

Strength of the drug

I	a millionth part.....	3 potency
II	a billionth ".....	9 "
III	a trillionth ".....	0 "
IV	a quadrillionth ".....	12 "
V	a quintillionth ".....	15 "
VI	a sextillionth ".....	18 "
VII	a septillionth ".....	21 "
VIII	a octillionth ".....	24 "
IX	a nonillionth ".....	27 "
X	a decillionth ".....	30 "

Animal Oils and Their Uses.

By A. M. GARANGE.

Animal oils are obtained from a large variety of land and sea animals, and from

several kinds of fish. They find many important uses, and their place cannot be filled entirely by vegetable or mineral oils. It will be useful to give briefly the more important points of the principal varieties.

Neat's Foot Oil. Neatherd is nowadays looked upon as an archaic word, and in everyday use the name of this oil is the solitary survival of the old Saxon name for the ox. The tripe shops keep its method of preparation constantly in the public mind. It is obtained, in fact, in the ordinary boiling of "cow heels" and tripe for public consumption, and separated from the water merely by rest and decantation. 100,000 pairs of ox feet give from 25 to 28 tons of oil. When pure it is an odorless, very limpid, straw-colored liquid which solidifies with difficulty. It will also keep a long time without turning rancid, and can be heated more frequently and to a higher degree without alteration than any other oil. Hence it is the best lubricating oil for delicate mechanism, such as the locks of firearms and the machinery of fieldpieces, and it is used by the clockmakers to a certain extent, perhaps not so much as before the Americans perfected their fish oils for this special purpose. It has also certain preservative employments; for instance, the prudent cricketer lays up his implements through the winter safeguarded against damp by a liberal coating of neat's-foot oil. It is rarely found pure in commerce. At the tripe shop it usually contains "sheep's trotter" oil, which has not such good qualities; this has an odor and congeals at a higher temperature than neat's-foot oil. In the wholesale market neat's-foot oil will also often contain a real adulteration in the shape of some or other vegetable oil, and in some places the hoofs of horses will have added their contribution. The oil from these is reddish yellow; it contains a large proportion of solid matter, and congeals at a relatively high temperature. It is, therefore, an undesirable addition.

Still another use of neat's-foot oil is in the preparation of leather, and in this employment it finds a competitor in an oil extracted from pigs' feet and refined. The oil obtained from pigs' feet by boiling in water contains a large proportion of stearine and is turbid at the ordinary temperature. At freezing point it solidifies altogether, and on being pressed yields a white limpid oil which is specially valuable in leather dressing. This contains 75 parts of oleine, 19 of margarine, and 6 of stearine, and is therefore very like lard oil, except that this latter contains no stearine and more oleine. The oil extracted from lard is white with a slightly yellow tinge, and is also used in leather dressing. It is sometimes sold for illuminating purposes.

Egg Yolk Oil. The yolk of a hen's egg contains about 21 per cent. of oil, and in round numbers it takes 5,000 eggs to obtain a hundredweight of oil. Egg oil is thick and almost opaque, with a color between yellow and orange; in fact, it seems

to be the coloring principle of the yolk. It is prepared by drying the yolk at boiling point until it is reduced to about half its size, and then pressing out the oil. It finds restricted uses in pharmacy and in the making of perfumery.

Cod Liver Oil.—If we said that this familiar delight of childhood was *never* found pure in commerce certain gigantic advertisers might talk of law and damages. We prefer, therefore, to insist that if there be a pure preparation on the market, the manufacturer is a remarkably conscientious man whose employees have a wonderful knowledge of the marine kingdom. At any rate, the ling and a whole tribe of other fish of the genus *gadus*, which have not even English names, contribute their quota of liver to the boiling pots. It would be difficult to reject them, and if it could be done it is very questionable whether any useful purpose would be served. Cod-liver oil is made principally in Newfoundland; but there are factories in Scandinavia and in Ireland. The livers of the fish are put into a kettle made with a double envelope, and on steam being introduced into the inner compartment the oil runs out without pressure. This is white, with a very slight odor. When no more oil runs the livers are stirred up, and this slight pressure brings out abundance of yellow oil. By more heat and more stirring, and the addition of water to the contents of the kettle, a final flow of brown or nearly black oil is obtained. Outside its well-known use as a medicinal food, it is largely used in tanning. The liver of the skate gives a golden yellow oil, which possesses almost the same properties as cod-liver oil. Lipaline, or artificial cod-liver oil, has nothing fishy about it. It is made by adding 6 per cent. of oleic acid to olive oil.

Whale and Sperm Oil.—The whales have been almost ruined by modern illuminating methods, and the whalers are perforce almost forgotten, except in out-of-date books for the boys. It is little use to detail the methods of capture, the difference between the descriptions of whale, and the rough and ready extraction of the oil. There are three kinds of whale oil—white, yellow, and black—and their mixture gives the medium quality which is found in commerce. Ordinary whale oil is reddish yellow and transparent, liquid in summer and of a honey-like consistence in winter. Sperm oil is an orange yellow transparent liquid with a strong fishy smell. The sperm whale is worth chasing still, for a single "fish" will give from 75 to 100 tons of oil, two to three tons of spermaceti, and a pound or two of ambergris. It is used principally now in skin and leather dressing, especially in preparing chamois leather.

Dolphin or Porpoise Oil.—Two members of the dolphin family furnish forth these oils, which are usually considered as one and the same thing. The round-headed porpoise gives a lemon yellow oil with a strong smell of the briny ocean.

The oil extracted from the dolphin is a paler yellow and more dense. Both are used in tanning and in the lubrication of delicate machinery.

Alligator Oil.—New Orleans was formerly the market for alligator skins and oil, but indiscriminate slaughter and want of a close time has cleared Louisiana of the saurians, and now they are farmed on the Mississippi and hunted in the vast marshes of Florida. New York is now the principal market for crocodile products. The oil is like an ointment of a reddish color, and contains more solid fat than cod-liver oil or sperm oil. In Brazil they call the oil extracted from the local variety of alligator "jacary grease," and use it for lighting purposes, in the making of waterproof varnishes, and as a medicine. In continental countries it is used principally in the making of degreas.

Shark Liver Oil.—This is a thick reddish nauseous oil, sometimes substituted for whale oil. Degras is manufactured from it. It is the shark of the northern latitudes that furnishes the oil, and the principal fishery is in Greenland.

Seal Oil.—The seal gives a very similar oil to its cousin the dolphin. The oil is extracted from the flesh much in the same way that whale oil is obtained. The color is yellow and the taste is nauseous. It is usually met with mixed with whale or sperm oil.

Dugong Oil.—Two sorts of dugong found on the coasts of India and Australia respectively give this oil. It is a brownish yellow turbid liquid with a strong fishy smell.

Other Similar Oils.—The sea-lion, the orc, the borqual, the jubart, the walrus, the manatee, and other sea animals are all laid under contribution for oil. If the mermaid ever does appear, she will most undoubtedly be of the company. These oils are seldom or never pure; they are mixed together with those already noted, and sold under the better known names. Everything caught goes to the pot, so that the composition of the oil sent out varies constantly and infinitely according to the hazard of the catch. The leather trade can and does use them all without enquiring too closely into the nature of the mixture.

Fish Oil.—It would be impossible to enumerate the fish that get into the oil kettle. Almost everything that swims is popped into the pan for oil in one place or another. The herring, sardine, whiting, skate, salmon—all our old familiar friends, in fact—yield oil, and "fish oil" may be a mixture of any or all of them. The oil is extracted either by boiling or by allowing the fish to putrefy. This latter is a method which makes the fish oil factory the place of all others to avoid. Fish oil, as ordinarily sold, is a brownish yellow oil, with a strong smell. It keeps limpid at freezing point, and is used principally for degreas manufacture.

Some fish oils, however, are sent out pure, under specific names, and among these are the following:

Japan Sardine Oil.—This is made in the islands of Yesso and Ava, and refined at Yokohama. Before this process, the oil, extracted by boiling the fish in water, is thick, even in summer; but as sent out from Yokohama it is a clear liquid, separated from the solid matter which is sold as fish wax or fish stearine. The oil is used in soap and candle making.

Tunny Fish Oil.—The tunny is a Mediterranean fish, caught in tremendous quantities off the coast of Italy. It is very rich in oleine and margarine, and is used principally for degreas.

Menhaden Oil.—This is extracted from a kind of shad found in abundance in American waters. An average specimen will weigh about four pounds, and a ton of fish boiled up in the usual way will yield about thirty-five gallons of oil. It has a brown color, a density of 0.933, and solidifies a few degrees under freezing point. It has all the properties of cod-liver oil. The Russian shad, caught in the Volga, is rather richer in oil, and this is sold under the name of Astrachan herring oil.

Salmon Oil.—There is hardly likely to be, in our times, an oil factory on Deeside, using the "fush" as raw material, though it might have been so in the days when Preston apprentices had a clause in their indentures by virtue of which salmon was not to appear on their dinner-table more than three times per week. China is the only country where salmon oil is made. It is a clear white oil, and is used in the preparation of Chinese ink.

In addition to the wide stretch of the animal kingdom we have already shown as laid under contribution for oil, there are still the birds and insects to speak of in this connection. Both yield oil, and we will give a few of the most noteworthy examples.

Penguin Oil.—Penguins have little or no wing, but otherwise look and behave remarkably like geese. They are so numerous and so easily knocked on the head that ten sailors have killed 275,000 in five weeks. As these would give about 25,000 gallons of oil, the business seems to be a pretty good one. The oil is extracted by scorching the flesh and boiling it. It is very like whale oil, but has a faintly disagreeable smell and soon turns rancid. It is used in leather dressing.

Fulmar Oil.—The fulmar is a puffin which makes a home of St. Kilda in the Hebrides, and it is the oilest bird in creation. It is a small oil factory on two legs. Its method of defence, in fact, is to squirt oil at the pursuer. When the birds are caught in August the operator takes them one by one and strangles them in a bag made out of the stomach of a solan goose, forcing them at the same time to part with their oil. A fulmar gives about a pound of oil which could easily be mistaken for cod-liver oil, and has some of its qualities. In St. Kilda it is a favorite medicine. In New Zealand and Tasmania another of the petrel family is done

to death for its oil in the same way, and this is used for lamps.

Frigate Bird Oil.—The frigate bird is plentiful in the Indian seas, and is the strongest of all flyers. The oil got by boiling its flesh is a sovereign remedy for Indian sciatica. It is an orange-tinted oil, of the consistency of palm oil, and the smell is not particularly disagreeable.

Insect Oils.—These, of course, are only made and used where insects are peculiarly plentiful; for instance, in locust-invaded countries. Locusts, cock-chafers, crickets, weevils, beetles, and other insects have been used from time to time, and the preparation of oil from them is always the same. They are ground up with water between two millstones, and the black or chestnut-brown paste thus obtained is left to rest in a vat for about a month. At the end of this time the oil has risen to the surface, and can be decanted. It looks like cod-liver oil, but has a disagreeable odor. After purification with sulphuric acid, an oil good enough at a pinch for several purposes, lubrication, for instance, is obtained.

Doubtless, in the remoter parts of the earth's surface, other and perhaps more curious animal oils are made and used. This essay, however, is sufficient to show that they are wonderfully varied, and that no division of the animal kingdom is forgotten in the universal quest for oil.—*Oils, Colors, and Drysalteries.*

Anthion.

The *Chemische Fabrik*, of Berlin, says the *Revue Universelle*, has recently put upon the market an oxidizing substance, the properties of which have been long known to chemists. It is the persulphate of potassa, and is prepared by electrolysis in submitting a solution of sulphate of potassa to an electric current. There occurs an oxidation and a deposit, at the positive electrode, of the persulphate, which is, in fact, less soluble than the ordinary sulphate, while hydrogen is disengaged at the negative electrode.

There is obtained a very light precipitate which readily crystallizes through solution in warm water, and which in cooling yields brilliant crystals having a reflection comparable to that of mother-of-pearl. These crystals are sold by the Berlin works under the name of "anthion." This substance, like all bodies whose stability is not perfect, is a remarkable oxidizing agent, either in neutral or slightly alkaline solution.

It is employed in dyeing and serves for decolorizing indigo and various other substances. It is also used for bleaching fabrics. But its greatest utility, without doubt, is the application that can be made of its properties in photography.

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Compound Syrup of White Pine.*

By ROBERT S. SHERWIN, Ph.C.

Compound syrup of white pine is a very popular expectorant that is used in many parts of this country.

All large manufacturing pharmacists who do not deal solely in specialties manufacture this syrup. Originally the formulas varied somewhat. One of these older formulas was as follows, for one fluid ounce :

White pine bark.....	20 grains.
Ipecac.....	15 "
Chloroform.....	4 minims.
Morphine acetate.....	8 grains.

The names of the ingredients that I selected to manipulate were taken from the label of a large manufacturing pharmacist. His syrup, from the information I have obtained, has by far the widest sale.

According to the labels on a number of different syrups, the ingredients are practically identical.

I have found that the white pine bark that is used in this preparation should be taken from those parts of the limbs or trunk on which either little or no cork formation has taken place, as those parts contain the most oleoresin.

The bark from the older parts of the tree, and especially that from old trunks, contains practically no oil and very little resin; it is composed almost entirely of cork. This older, corky bark is all that I have been able to obtain from different wholesale druggists. When making this syrup I collected the bark myself. I have found that it is collected more easily in the spring of the year than in the late summer or fall. I have made the syrup from both the fresh and the dried bark, and find the dried to be not only more easily manipulated, but also to afford a better preparation. In preparing the syrup I use the sulphate of morphine. The hydrochlorate may be used, and the acetate is used by some manufacturers; the latter, however, is not so invariable in quality as the sulphate. I use one-half the quantity of chloroform that is stated on the labels of the various manufacturing pharmacists, yet my finished product contains more chloroform than any of the commercial samples that have come into my hands. Therefore, the manufacturers either do not put in as much as they state or it is lost by evaporation before it reaches the retail trade. All of the samples of the syrup on the market which I have examined contain coloring substances. I made my first lot of syrup by exhausting the drugs with a hydro-alcoholic menstruum, and dissolving the morphine sulphate, chloroform and sugar in the medicated percolate. This procedure yielded an unsatisfactory product, yet it was very much like the numerous syrups on the market. In a second attempt I exhausted the drugs with a menstruum composed of 2 parts of glycerin and one part

of water, and dissolved the morphine, chloroform, and sugar in the medicated percolate. This method gave a better product than the first did, but it was not as satisfactory as the preparation yielded by the following plan, which has given the best results so far :

White pine bark.....	65.0 grammes.
Wild cherry bark.....	"
Balm of Gilead buds.....	"
Spikenard root.....	8.7 "
Sanguinaria root.....	6.5 "
Sassafras bark.....	4.4 "
Morphine sulphate.....	0.4 "
Chloroform.....	4.0 c.c.
Glycerin.....	150.0 "
Sugar.....	700.0 grammes.
Water, a sufficient quantity to make 1,000 cubic centimetres	

Mix the glycerine with 300 cubic centimetres of water. Having mixed the white pine bark and other vegetable drugs, reduce them to a No. 40 powder. Moisten the powder with a sufficient quantity of the menstruum, and allow it to macerate for twenty-four hours; then pack it firmly in a cylindrical glass percolator, and gradually pour on the remainder of the menstruum. When the liquid has disappeared from the surface, follow it with water, continuing the percolation until 500 cubic centimetres are obtained. Dissolve the morphine sulphate and chloroform, and then the sugar, in the percolate by agitation without heat, strain and pass enough water through the strainer to make the product measure 1,000 cubic centimetres.

Each 30 cubic centimetres of the product represent :

White pine bark.....	2.000 grammes.
Wild cherry bark.....	2.000 "
Balm of Gilead buds.....	0.250 "
Spikenard root.....	0.250 "
Sanguinaria root.....	0.180 "
Sassafras bark.....	0.120 "
Morphine sulphate.....	0.012 "
Chloroform.....	0.120 c.c.

The foregoing process makes a beautiful, bright, and permanent preparation, that may be given in doses of from one to three teaspoonfuls.

This syrup is as easily prepared as syrup of wild cherry. It costs less than \$1 per gallon, while those brands on the market are sold for about \$3.50 per gallon. It can be put up in bottles holding four fluid ounces, and syrup, bottles, corks, and labels need not cost over sixty cents per dozen.

Inasmuch as the compound syrup of white pine is used over such an extensive territory, and its sale in some parts of this territory is so enormous, I am of the opinion that there should be a formula for its preparation in the National Formulary. I believe the compound syrup of white pine is now used much more than a number of preparations which are now recognized in the National Formulary.

NOTE.—Since Mr. Sherwin's thesis was deposited with the faculty of the college, we have received a copy of the new and revised edition of the National Formulary, and find that compound syrup of white

pine is recognized therein under the title of *Syrupus Pini Strobi Compositus*. We print the formula in full, so that comparison with Mr. Sherwin's formula may be easily made :

White pine bark (<i>Pinus Strobus</i>).....	75 gms.
Wild cherry bark.....	75 "
Spikenard root.....	10 "
Balm of Gilead buds.....	10 "
Sanguinaria root.....	8 "
Sassafras bark.....	7 "
Morphine sulphate.....	0.5 "
Chloroform.....	6 c.c.
Sugar.....	750 gms.
Alcohol.....	"
Water.....	"
Syrup (U.S.P.), of each a sufficient quantity to make 1,000 cubic centimetres.	

Reduce the vegetable drugs to a moderately coarse (No. 40) powder, moisten the powder with a menstruum composed of one volume of alcohol and three volumes of water, and macerate for twelve hours. Then percolate with the same menstruum until 500 cubic centimetres of tincture have been obtained, in which dissolve the sugar and the morphine sulphate; lastly, add the chloroform and sufficient syrup to make 1,000 cubic centimetres, and strain.—*American Pharmaceutical Journal*.

Pharmacy in Victoria.

According to the report for 1895 of the Pharmacy Board of Victoria, Australasia, the number of would-be pharmacists in that colony is greater than ever, 148 students having entered for the preliminary examination, and 71 passed during the year, as against 126, of whom 60 passed, in 1894, the highest number previously on record. For the certificate of the Melbourne College of Pharmacy, 48 students presented themselves for examination in chemistry and practical chemistry (30 passed), and the same number in materia medica and botany (26 passed). Having passed the preliminary examination before apprenticeship, served for not less than four years as an apprentice, attended courses of lectures in materia medica, botany, chemistry, and practical chemistry, and passed college examinations in those subjects, 29 candidates presented themselves for the final examination in practical pharmacy, and 16 passed. In 1891 there were 37 entries, and 26 passes. For the modified examination, open to those whose apprenticeship commenced before the passing of the Pharmacy Act, 1876, four candidates presented themselves, and all failed. The additions to the register of pharmaceutical chemists during 1895 were 20 only, the smallest number for any year on record, but the number of apprentices registered was fifty-one, the highest on record. There are now 1,170 pharmaceutical chemists registered under the Act, of whom 137 were registered under certificates from the Pharmaceutical Society of Great Britain, and 523 apprentices.—*Pharmaceutical Journal*.

*Abstracted from a thesis presented to the Philadelphia College of Pharmacy.

The Science of Optics.

BY LIONEL LAURANCE,
Principal of the Optical Institute of Canada.

[Entered according to Act of Parliament of Canada, in the year 1896, by Lionel Laurance, at the Department of Agriculture.]

Emmetropia.

A much simpler and quicker method, and one that serves quite well enough for general purposes, is to make the refraction normal by the distance test and then to find the nearest point at which the fine print can be read; this is the P.P.; measure its distance from the eyes and divide the distance into 40, the result is the amplitude. For instance, the P.P. is at 8 in., then 8 into 40 gives 5, which is the amplitude in D; or the P.P. is at $4\frac{1}{2}$ in., then that into 40 goes 9 times and the amplitude is 9 diopters. By this test it can be learnt if the accommodation be normal according to age and also, in many cases, if the correcting lenses be about right. It also gives approximately the age of a person; for example, if you find an amplitude of 7D you can reckon the person to be very near to 30 years old. The accommodation in both eyes is always the same; if there be a difference of vision it is due to the refraction. Perhaps a little more accurately it might be found by testing each eye separately, the other being covered.

If parallel rays from a candle 20 ft. distant be focussed on to a screen of white paper by a convex lens of 1 in. focal length or 40D refraction a clear sharp image of the flame will be obtained on the screen if the lens be exactly 1 in. in front of it. If, now, the candle be brought nearer than 20 ft., the rays proceeding from it to the lens are divergent and the image is blurred unless the lens be moved further from the screen and nearer to the candle, or the screen placed further back. But let us suppose that, both the screen and the lens being firmly fixed, the distance between them cannot be increased. In such a case there is but one means of getting a sharp focus, and that is by adding to the 1 inch lens another whose refractive power is just enough to make the divergent rays parallel before they enter the fixed lens. From what has been said before it should be known that if the rays be divergent from, say, 10 in. then a 10 in. lens will make them parallel; and the same with those from any other distance, a convex lens of that focal length will render them parallel. So that if the candle be at 40 in. a 40 in. convex or a +1D lens must be added to the fixed lens; then the divergent rays from the candle 40 inches off will be rendered parallel; and being parallel when they enter the 1 in. or 40D lens the strength of the latter is sufficient to bring them to a focus on to the screen. If the candle be brought to 20 in. it requires a 20 in. convex or +2D lens; if it be at 10 inches it requires a 10 in. or +4D lens, and so with any other position of the candle.

So also the refractive power of the

emmetropic eye, 50D, just suffices to bring parallel rays to a focus on the retina, but if the rays come from an object that is nearer than 20 ft., the rays being divergent, the refractive power of the eye is not sufficient, and in order to bring them to a focus at the retina it must be increased in strength; this increase is obtained from the accommodation, and the nearer the object is the more divergent are the rays and the greater is the amount of accommodation required in order that the object be seen. Accommodation can therefore be defined as "The power to form a clear image of divergent rays," or as "The adaptation of the eye to seeing objects at various distances."

The quantity of accommodation exerted for seeing a thing at any certain distance is the same as I illustrated with the lenses thus

	Distance in inches.	Distance in Cm.	Ac. exerted.
At	∞	∞	None
	160	400	0.25D.
	40	100	1.00D.
	20	50	2.00D.
	8	20	5.00D.

To find the quantity employed divide the distance in inches into 40, and the result is the diopters of accommodation; for instance, at 5 in. 8D of accommodation is exerted; at 16 inches 2.5D of accommodation; at 13 inches 3D of accommodation, and so on. If the distance is in centimetres, then divide into 100; if in millimetres, divide into 1,000. For example, the quantity of accommodation employed for seeing an object at six inches, 15 centimetres or 150 millimetres, then these numbers divided respectively into 40, 100, and 1,000 give the same result, viz., 6.50D of accommodation. There is often a small fraction left, as in the last example, which need not be reckoned.

If the calculation of the accommodation be made in inches, it is exactly the same as the distance of the object. If the origin of the rays be at 13 inches, then the accommodation employed is $\frac{1}{13}$, which is the refractive power equal to that found in a $\frac{1}{13}$ or No. 13 lens—namely 3D, but the accommodation can properly only be reckoned by diopters.

When a person is well advanced in age the diminution of the amplitude of accommodation shows itself by the defect known as old sight.

Convergence is that power of the internal recti to turn the two visual axes to any point nearer than 20 feet, so that a single object be seen by the two eyes at the same time.

When the eyes are directed to a distant point the visual axes are said to be parallel. They are not really so, but the

amount of inclination is so extremely small as not to be worth considering.

The measurement of convergence is by metre angles (symbol MA). The unit 1MA, is the quantity of convergence exerted in order to fuse the images of an object 1 metre or 40 inches distant. For points nearer than 40 inches more convergence must be employed and the quantity for any given point is found by dividing 40 by the number of inches the object is distant, or if calculated by centimetres, by dividing 100.

The following gives the convergence for various distances:

	Distance in inches.	In Cm.	Con. exerted.
At	∞	∞	None.
	160	400	0.25 M.A.
	40	100	1.00
	20	50	2.00
	8	20	5.00

For more on this subject see chapter on convergence.

Then at ∞ no accommodation is required in order that rays be focussed on the retina, nor is any convergence required in order that a single object be seen by both eyes, but at any point short of 20 feet both functions are brought into play, and the number of MA of convergence for any distance is the same as the number of D of accommodation; in fact, the metre angles measurement of convergence was adopted in order to make this fact more simple of calculation. When the eyes are directed to the reading point of, say, 16 inches, the convergence exerted is 2.50 MA and the accommodation employed for focussing such divergent rays is 2.50D, and at every other distance the same quantity of the two functions is exerted so long as the eyes are normal as to their refraction.

In emmetropia the harmonious working of the two functions takes place quite naturally without jar or cognizance of the fact, and, moreover, if the eyes be converged to a certain point the accommodation necessary for seeing at that distance is also immediately exerted; also, if the eyes be accommodated for a certain distance, they are at once converged to the same point. A person blind of one eye, to whom convergence is therefore useless, will, when reading, turn them both inwards. There is no doubt that the muscles of accommodation and convergence have their innervation at the same source, so that their movements are associated.

So intimate is the connection between the working of the ciliary and that of the internal recti that the slightest disturbance of their joint action in some eyes results in that condition which is called asthenopia—a weak, painful condition of the eyes. This defect can almost invariably be traced to the want of co-ordination between accommodation and convergence, due to one set of muscles being deficient in strength, or to the fact that, owing to an error of refraction, the one function has to be used in excess of the other.

Although the convergence and accommodation are thus intimately connected,

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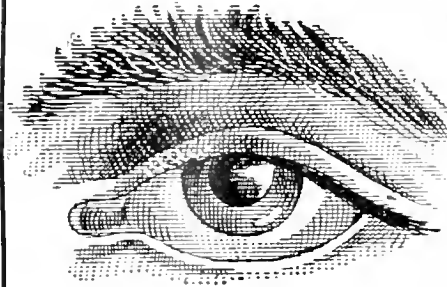
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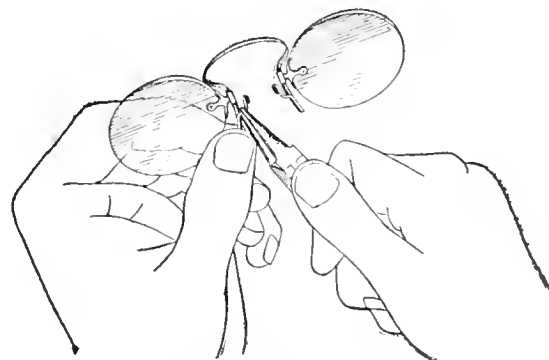
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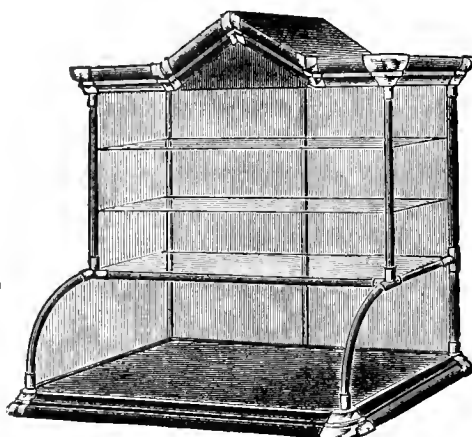
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Show Cases . . .

Wall Cases

Druggist Fittings

Mirrors, etc. . .



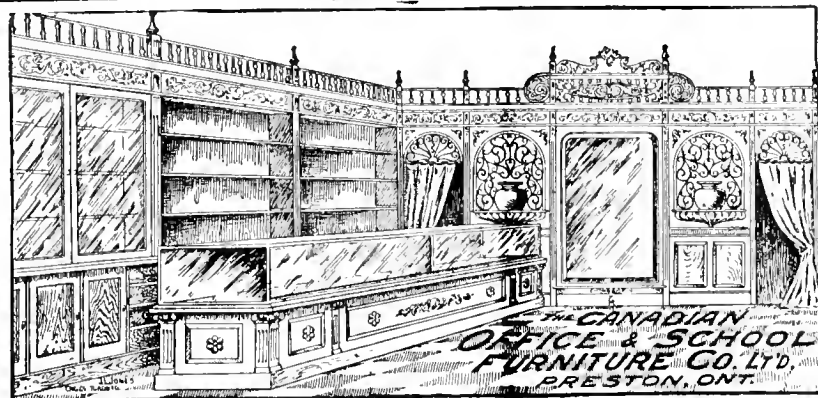
We carry THE
LARGEST STOCK
of any house IN
THE DOMINION,

and guarantee every article
to the satisfaction of the
purchasers.

SEND FOR CATALOGUE

Designs Free of
Charge.

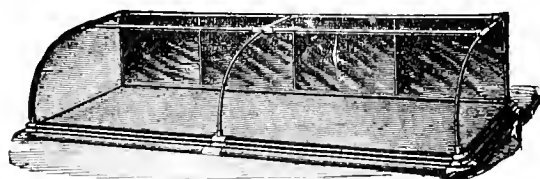
56 ADELAIDE ST. W., and 125-127 BAY ST., TORONTO, ONT.



C. Schack & Co....

Manufacturers of

SHOW CASES
STORE AND OFFICE
FITTINGS



Choice Designs in
CHERRY, OAK, WALNUT and MAHOGANY.

FIRST-CLASS WORKMANSHIP.
LOWEST PRICES.

Special Attention Given to Fitting Drug Stores

Estimates and Designs
Furnished on Application.

21-23 Alice Street, - - TORONTO.

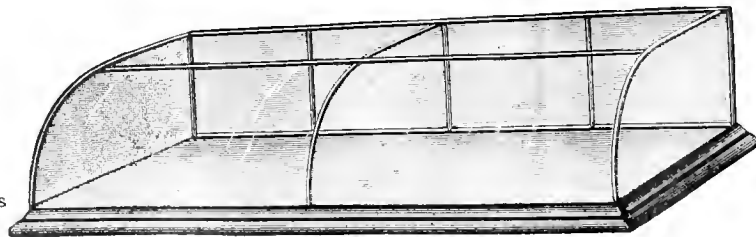
LONDON SHOW CASE WORKS

Manufacturers of

SHOW
CASES

Of all kinds

FOR



COUNTERS, WALLS, OR DISPENSARIES.

SHOP FIXTURES ♦ COUNTERS ♦ TABLES ♦ SHELVING ♦ MIRRORS, Etc.

Send for Catalogue
and Price List

237 King Street,

LONDON, ONT.

Deafness	Absolutely Cured	Head Noises
Deafness	in 24 hours	Head Noises
Deafness	by using	Head Noises
Deafness	one bottle of	Head Noises
Deafness	"Auraline	Head Noises
Deafness	Essence,"	Head Noises
Deafness	the	Head Noises
Deafness	Great	Head Noises
Deafness	Indian	Head Noises
Deafness	Discovery	Head Noises
Deafness	Millions of	Head Noises
Deafness	Sufferers	Head Noises
Deafness	Cured	Head Noises
Deafness	after all else	Head Noises
Deafness	had failed.	Head Noises
Deafness	Why	Head Noises
Deafness	remain deaf	Head Noises
Deafness	when a	Head Noises
Deafness	cure	Head Noises
Deafness	awaits you?	Head Noises
Deafness	Avoid the	Head Noises
Deafness	use of	Head Noises
Deafness	instruments	Head Noises
Deafness	and other	Head Noises
Deafness	injurious	Head Noises
Deafness	appliances.	Head Noises
Deafness	Send 2/6	Head Noises
Deafness	to the	Head Noises
Deafness	MACKAY	Head Noises
Deafness	Remedy Co.,	Head Noises
Deafness	104 High	Head Noises
Deafness	Holborn	Head Noises
Deafness	LONDON	Head Noises

GERMAN
ARMY

PILE REMEDY

Each One Dollar Package Contains

Liquid, Ointment,
and Pills.

GOOD SELLER.

GOOD MARGINS.

WELL ADVERTISED.

THE ONLY CURE FOR PILES.

Write us to mention in your daily or weekly
papers that GERMAN ARMY PILE REMEDY may
be procured from you.

The KESSLER DRUG CO.

Canadian Agency Toronto

TEABERRY FOR THE

HARMLESS
CLEANSING TEETH

ZOPESA-CHEMICAL CO.

1-CAA

TORONTO 25C.

FOR SALE BY ALL JOBBERS

Awnings

AND

Window Shades

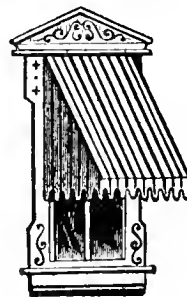
FOR

HOUSES, OFFICES,
AND STORES

Made by experienced workmen,
and of the best materials, at prices
as low as is consistent with good
work and materials.

ESTIMATES FURNISHED.

Wm. Bartlett,
16 Adelaide St. West,
TORONTO.



still they can also act independently of each other to a certain extent. At the far point the accommodation can be exerted in excess of the convergence, and at the near point the convergence can be used in excess of the accommodation, so that in minor defects of the refraction the strain of employing one function in excess of the other is not felt. This will be better understood when hyperopia and myopia have been studied. That these two functions can be exerted independently can be proved in this way. Look at an object situate 20 feet away and hold in front of the eyes a pair of concave lenses, say 2D. The object will still be seen, because 2D of accommodation is brought into action, while the object is seen singly, which would not be the case if convergence were also exerted, as then double vision would be caused, and two objects seen instead of one, nor would the object be seen at all through the concave lenses unless accommodation equal to their strength were employed.

In the same way it can be proved that convergence can be exerted without accommodation, by looking at a distant object through a pair of prisms, say, 2 bases out placed in front of the eyes. To counteract the deviation caused by the prisms convergence is exerted, while accommodation is completely at rest.

Or at the near point similar tests can be employed by reading print through convex lenses which prevent the employment of accommodation, and through prisms bases in, which prevent the employment of convergence; or by looking through concave lenses which cause more accommodation to be exerted and through prisms bases out which cause more convergence to be employed.

Although these tests prove that one function can be used without the other, still it is contrary to nature, and therefore unpleasant, if not painful. When looking at a distance through concave glasses the eyes soon feel strained (if they be not myopic), but this can be relieved by using also prisms bases out. The latter cause convergence to be exerted, and then the two functions being equally employed no strain is felt. So also, when an object at the close point is looked at through convex lenses of sufficient strength to prevent the use of accommodation, the eyes shortly feel quite painful; but if prisms bases in be also used, these, preventing the use of convergence, also remove the painful symptoms.

It is of the utmost importance that the co-ordinate action of accommodation and convergence be thoroughly understood, for the proper fitting of glasses can never be achieved without it. It is the want of this harmony that is the cause of the painful symptoms in uncorrected or improperly corrected errors of refraction and accommodation, and next to the improvement of vision, and very often in preference, the most important thing is to obtain as nearly as possible harmonious working of the two sets of muscles.

The relative convergence is the amount that can be exerted with any given quantity of accommodation. It can be found by directing the eyes to a certain point, say, 20 inches. At this point 2D of accommodation is employed. Then find the strongest prisms, bases out, through which a single object is still visible. The deviation of the eyes to overcome the prismatic power can be calculated in M.A.

The relative accommodation is the amount that can be exerted with any given quantity of convergence. It can be found by directing the eyes to a certain point, say, 20 inches. At this point 2MA of convergence is employed. Then find the strongest concave lenses through which the object can still be seen. The numbers of D of these lenses must be added to 2D, which is the accommodation that must anyhow be exerted to see the object at 20 inches.

The nearer the point the greater the relative convergence and the smaller the relative accommodation. The more distant the point the smaller the relative convergence, and the greater the relative accommodation.

Binocular accommodation is that of the two eyes together.

Absolute accommodation is that which each eye can exert separately.

The latter is greater than the former, as then convergence to a nearer point can be exerted, and so more accommodation. The former is, however, greater than the latter, if convergence to a nearer point be prevented.

If the two eyes be directed to an object 20 feet away the absolute accommodation can be ascertained by finding the strongest concave glass through which each eye separately can see it. The binocular accommodation will be that which can overcome the strongest concave lenses held in front of the two eyes. There will be found a difference of from one to two diopters, the absolute accommodation being greater to that extent, because when the one eye is covered over, binocular vision not being necessary, convergence is brought into play, so that more accommodation can be exerted; while, when the two eyes are together directed to the object, this being at infinity, binocular vision is necessary, and no convergence can be exerted, and, therefore, not so much accommodation.

From the foregoing it will be seen that in order to exert accommodation to its fullest extent convergence must also be used; this is a most important fact. Also if it be understood that the employment of the one function brings about the exertion of the other this will immediately explain convergent squint, and the reason why in hyperopia stronger convex lenses are accepted by the two eyes together than by each separately.

The co-ordination between accommodation and convergence is more conserved in some eyes than in others. When there is an error of refraction the link be-

tween the two must be, to a certain extent, severed. In slight defects this is fairly easily achieved, and in the deeper ones, if it be effected, there is a more painful condition than when the intimate connection is kept up.

A watchmaker who uses a 10D lens constantly for viewing objects 4 inches from the eyes sees without accommodation, and, as one eye only is employed, he also uses no convergence. He, therefore, suffers no pain or inconvenience; but, if he were to use a pair of spectacles of that same strength, as he would then be using convergence without accommodation, he would not be able to keep them on five minutes together.

As I have before stated, when there is an error of refraction, the harmony is disturbed, and in Hyperopia (symbol H) accommodation is used in excess of convergence, and in Myopia (symbol M) convergence is used in excess of accommodation.

The following table gives the quantity of accommodation and convergence employed at various distances in emmetropia, in H of 1D, and in M of 1D.

Distance		MA of Con.	Diopters of Ac.		
Inches.	Cm.	employed.	Em.	H of 1D	M of 1D
∞	∞	Nil	Nil	1.000	Nil
160	400	0.25	0.25	1.25	Nil
80	200	0.50	0.50	1.50	Nil
40	100	1.00	1.00	2.00	Nil
30	75	1.50	1.50	2.50	0.50
20	50	2.00	2.00	3.00	1.00
16	40	2.50	2.50	3.50	1.50
13	33	3.00	3.00	4.00	2.00
10	25	4.00	4.00	5.00	3.00
8	20	5.00	5.00	6.00	4.00
6	15	6.50	6.50	7.50	5.50
5	12.5	8.00	8.00	9.00	7.00
4	10	10.00	10.00	11.00	9.00

Note that for every D of H one diopter more of accommodation must be employed at any certain distance, and for every D of M one diopter less.

Although acting independently there is also an intimate connection between the action of the ciliary and that of the iris. When the sphincter of the former contracts the sphincter of the latter contracts also, so that when the crystalline lens is accommodated by the contraction of the sphincter muscle of the ciliary, the pupil is made small by the contraction of the sphincter muscle of the iris.

The utility of small pupils when the eyes are adjusted for reading will be found by referring to "Spherical Aberration."

When the pupils are small defects of refraction are modified. In testing when one eye is covered over, the pupil will sometimes dilate because the light is excluded from it, and will cause a similar dilation in the uncovered eye; so that the sight is found rather more defective, which, perhaps, is not a disadvantage in testing. This seemingly contradicts what I have just stated regarding the pupil being smaller when the eye is accommodated, and as to more accommodation being exerted when the one eye is covered over. Both are true, and the former will apply in some cases and the latter in others, or perhaps the one will counteract the other, and the pupil remain stationary as to size.

Advertising.

Practical Hints on Advertising.

Copyrighted, 1896, by CHARLES AUSTIN BATES, New York.

If advertising be confined to a specified territory, it ought to be a simple matter of arithmetic to tell whether or not it was profitable. Certainly the manufacturer knows what quantity of his goods are sold in a certain territory. If he tries advertising for six months or a year, and the sale isn't increased, he certainly knows that the advertising was not of the right sort.

If the business is increased, he can measure by the additional profits against the cost of the advertising, and by the simple operation of subtraction find out just how profitable the advertising had been.

Of course, where the advertising has been general all over the country for a long time, it is hard to tell just exactly what it accomplishes. This is more particularly the case when general as well as local circulating mediums are used.

The man who is using local papers and also the great monthly magazines cannot tell whether the magazine advertising pays or not. He cannot tell absolutely about the local advertising, but he can get near it if he tries.

Of course, if he sells to jobbers, and they in turn sell to retailers, the problem is more difficult, and, in fact, is almost unsolvable. When he is first going into any given territory, however, he can tell exactly what its advertising is doing. It will require attention to do this, and it will require some figuring.

To be sure, a Cincinnati jobbing house may buy the goods that are sold by a Kentucky retailer, and so apparently results might come from Ohio when the advertising was being done in Kentucky. It is comparatively easy, however, to find out where the actual sales are made if an effort is made to do so.

* * * *

A certain wise man, who has now been dead some years, said: "Of the making of many books there is no end." He must have foreseen the booklet era in the history of advertising. There are more booklets used now than were ever used before in the world. It seems that no business of any kind can get along without a booklet, and booklets are good things. There's no question about that.

A booklet enables a man to tell a longer story than he can tell in an advertisement, unless he has a great deal of money and a great deal of nerve. Sometimes I am inclined to think that an advertisement covering the entire ground might be published in the right sort of papers and get a great deal wider circulation for the same amount of money than can be obtained by the publication of a booklet. The booklet is a sort of stock advertisement, however, and may be used effectively in the regular daily correspond-

ence, or in the daily out-go of packages and boxes.

The booklet is necessary. Many makers of booklets make the mistake of talking too much before they begin to tell their story. I like the booklet that jumps right into the middle of the story on the first page, and talks business from the first letter to the last period. I do not like the booklet, or the advertisement, for that matter, that begins in some such way as this:

"That interesting work, Webster's Unabridged, defines a hinge as a joint on which a door, lid, etc., hangs or turns."

This sort of thing is generally the opening to two or three pages of unnecessary introductory literary matter.

Business men do not have time to read stories during business hours, no matter how interesting and well written the stories may be. If a man who is interested in hinges gets a booklet about hinges, he wants to get the meat out of it as quickly as he can. He doesn't care anything about what Webster says about hinges. He knows what a hinge is, and his opinion and Webster's may possibly differ. He cares more about the quality and prices of the commercial hinge than he does to know the dictionary definition of the word.

* * * *

I believe in a booklet that tells quickly whatever it was written to tell. I do not mean that I would sacrifice clearness for the sake of brevity, but I would start immediately to tell my story whether it was long or short.

* * * *

Newspaper publishers will get more benefit from progress in advertising than any other class of men, and yet they are the ones of all others who throw obstacles in the path of the progressive advertiser. I have recently had it brought forcibly to my attention that many publishers fine their advertisers when they endeavor to make their advertising profitable. They apparently do not want the advertising made profitable, at least profitable to the advertiser. Publishers refuse to change the ads of local advertising unless exorbitant extra charges are paid. In doing this they are certainly standing in their own light. They are doing what they can to make the advertising unprofitable, and, if it is made unprofitable, how in the world can they expect it to be continued or increased?

If they are not getting enough money for their space to afford to change the ads frequently, then they ought to advance their rates. I believe, however, that it is generally true that they are getting enough money to permit the frequent changes of the advertisements.

Several years ago, when I was making some contracts with a number of local papers, I proposed to furnish electrotypes, provided I could get a concession in rates by so doing. I was told that it didn't make any difference whether electrotypes were sent or whether the composition was

done in the office, because the printers were there, and were employed by the week, so that it cost no more when they were busy than when they were not busy.

This is, undoubtedly, the case in most local newspaper offices. It must of necessity be in only the larger cities, where composition is paid for by the piece, that the changes of ads make any appreciable difference in the expense of getting out a paper.

It doesn't cost much to set an entire paper in an ordinary weekly office. There are comparatively few papers that are all set in the office of issue. Plate matter is now so good that the average local editor cannot possibly improve upon it, even if he gives his entire time to the subject. An ordinarily good printer will set several columns of advertisements in a day. I mean the ordinary run of ads that go into weekly papers.

Of course, if he has any fancy work to do on the ads, or if a good many of them have borders, he won't set so much, but I should think a reasonably fast printer ought to set six or eight columns of ads in a day. I suppose that the average price paid for this kind of work in newspaper offices all over the country is not more than two dollars a day. In the general run of country offices, I doubt if it is more than a dollar and a half a day.

At this rate, it would cost something like twenty-five cents to change a column of ads. Of course, the making-up would take some time, but the increased business that would surely come from this kind of work would more than pay for the time and trouble involved.

Tobacco soap (Nicotiana soap) has been introduced in Germany for treating parasitic diseases of all kinds, particularly itch. The originator, P. Tauzer (*Pharm. Centralh.*) prepares an extract from tobacco refuse, containing about 8 per cent. of nicotine, of which he incorporates 10 per cent. in the soap, scenting slightly with oil of bergamot. This soap has proven excellent in allaying itching, and hence is expected to prove valuable to hives and pruritus. It must not be used on moist eczemas and pustulous affections, while on children it must be employed with great care.

BLAUD'S PILLS.—A good method, according to Rava (*Pharm. Zeit.*), is the following: Prepare ferrous carbonate by precipitation from 270 grams of ferrous sulphate with 168 grams of sodium bicarbonate. Mix the fresh precipitate with 50 grams of honey, 25 grams of acacia, and 20 grams of glycerin. Complete the mass by the aid of any suitable constituent, and make into pills weighing 0.25 gram each.

IODOFORM DEODORIZER.—Iodoform forms an odorless combination with hexamethylentetramin, and so the latter is recommended (*Phar. Centralh.*) for removing the odor of iodoform from hands and utensils.

"THE LANCET," "BRITISH MEDICAL JOURNAL," and "THE OPTICIAN,"
strongly recommend

DENTONS' ^{New Patent} "Acme" Lens- Front Clinical Thermometer



STILL MORE EASY TO READ.
INDEX AND SCALE IN THE SAME PLANE.
WILL NOT ROLL.
INDELIBLE ENGRAVING

WHOLESALE ONLY AT

25a Hatton Garden, London, England.

WE KNOW THAT ♦ ♦ ♦ ♦

Baby's Own Soap

Is cut for advertising purposes, but you make a great mistake
in not keeping it, as it carries trade with it.



Ox Gall Stain Soap

An attractive package, tin-foil and carton, 1/2 doz. in box. A
most wonderful preparation for removing stains of paint and
grease from carpets, clothes, etc., and restoring their natural
color.

The Albert Toilet Soap Co. MAKERS AND SELLERS. Montreal.

Wine of the Extract of Cod Liver

Sold by all first-class
Chemists and Druggists

CHEVRIER

General Depot:—PARIS,
21, Faubourg Montmartre, 21

This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis, and all diseases of the Chest.

Wine of the Extract of Cod Liver with Creosote

General Depot:—PARIS,
21, Faubourg Montmartre, 21

CHEVRIER

Sold by all first-class
Chemists and Druggists

The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

Druggists Want

Wilson's Scales

Refrigerators

Show Cases



HIGHEST AWARD AT WORLD'S FAIR, CHICAGO.

SPECIAL PRICES THIS MONTH.

C. WILSON & SON,

79 Esplanade Street East, - - - TORONTO.

Sure Selling Specialties:

CARSON'S BITTERS

PECTORIA

SILVER CREAM

ALLAN'S COUGH CANDIES
1/2 gross Box at \$1 per Box.

STOWES AMBER
LINIMENT

The Great Cure for Rheumatism.

SOAP BARK

In 5c. Packages, 1/2 gross Box, \$1
per Box.

Full lines of Sundries.

Mail orders promptly executed.

ALLAN & CO.

132 BAY ST., TORONTO

We Pay Special Attention

TO THE
MAKING OF

Toilet Papers

SEVERE TESTS HAVE SHOWN THE SUPERIORITY OF
OUR TOILETS.

We have one machine running continually
on Tissues—and it makes good Tissue.

WE WOULD LIKE TO SEND YOU SAMPLES.

THE E.B. EDDY CO., LTD.

HULL

MONTREAL

TORONTO

JUST PLAIN TOBACCO OF THE HIGHEST GRADE

FLAVOR AND FRAGRANCE UNEQUALLED

FORTIER'S

Cigars and Cigarettes

GIVE BEST OF SATISFACTION AND WILL INCREASE YOUR SALES.

We Sell to most Druggists
But we are anxious to Sell to you

WRITE
TO-DAY
FOR
A
SAMPLE
ORDER

Lafayette

Cigars and Cigarettes 5 cents

Creme de la Creme

Cigars and Cigarettes 10 cents

Royal Turkish

Cigarettes 15 cents

Sonadora

Cigars and Cigarettes 15 cents

Creme de la Creme Cigar Co.

MONTREAL.

"Mist" COUGH
LOZENGES

SELL ON SIGHT
GOOD PROFIT . .

10cts.

THE KEY MEDICINE COMPANY,
395 YONGE STREET, TORONTO.

"DUNRAVEN" 10c.

"F. & S." 5c.

These are both very
high-class Cigars.

Fraser & Stirton,

Send for Sample Order.

LONDON, Ont.

FREE

Send us your name and address, and mention this paper, and we will mail you **FREE** a copy of "Selections from Good Advertising." All we ask is that you send us 10 cents to pay the postage.

"Selections from Good Advertising" is a well-printed book of about 100 pages. It contains 12 chapters taken from Charles Austin Bates' 700-page book "Good Advertising," which sells for \$5.

"Selections from Good Advertising," which we now offer **FREE**, is the same book we have advertised in this paper heretofore for 50 cents.

If your 10 cents gets here after all the books are gone, we will send your money back.

THE HOLMES PUBLISHING CO.,

15 & 17 Beekman St.,

-

NEW YORK

HOW TO SEE

Niagara Falls!

The best views of the Great Cataract are obtained from

THE OBSERVATION TOWER

Opposite Prospect Park, Entrance to the State Reservation.

An unequalled panorama, embracing the magnificent landscape and river scenery of the Falls.

The Best View of the River and Rapids

is gained by a trip over

'The Gorge Route'

THE

Niagara Falls and Lewiston Railroad.

This splendidly equipped electric line traverses the entire length of the Niagara Gorge, on the American shore, close to the water's edge, from the Falls to Lewiston, passing many

Caves, Rapids, Battle Grounds,
and Historic Points.

To see Niagara, as it should be seen, cheaply, thoroughly and quickly, the tourist should ascend the Observation Tower, and later take a trip over the most complete electric route in the world—

THE NIAGARA FALLS AND LEWISTON RY.

For Excursion Tickets, etc., address,

J. M. BRINKER,
President.

D. B. WORTHINGTON,
Gen. Pass. Agt.,
Buffalo, N.Y.

Formulary.

FLUID EXTRACT OF COFFEE.

Coffee, freshly roasted and ground 5xxxvii.
Glycerin Oj.
Water, q.s. ad. Oiv.

Dilute the glycerin with three pints of water, and pour the solution upon the coffee contained in a wide mouthed bottle. Macerate for several days; then transfer to a percolator, add water, and displace three pints. Continue the percolation until the coffee is exhausted, then evaporate the product to one pint to be mixed with the three pints of the first percolate.

POUDRE DE RIZ.

The *Seifen-fabrikant* recommends the following formula:

Wheat starch 2,500 parts.
Talc 1,500 "
Magnesium carbonate 500 "
Orris root 500 "
Oil of lemon peel 25 "
Attar of roses 5 "

Powder each of the solids separately, mix and triturate with the oils.—*National Druggist*.

ZINC GLYCEROLE FOR CHILBLAINS, ETC.

Zinci oxyd. *precip.* 3 ounces.
Glycerini, *opt.* 12 "
Acid tannic 2 "
Ol. eucalypt. glob. 12 "

Mix the oxide of zinc to a perfectly smooth paste with some of the glycerine in a Wedgwood mortar; perform a similar operation with the tannic acid, adding in the oil of eucalyptus to this latter mixture; work the whole together with remainder of glycerine, until of perfectly homogeneous consistence throughout. Store in suitable jars, or wide-mouthed bottles, for use.

This preparation is to be applied by painting on the affected part. It is also valuable for inflamed surfaces.

HARNESS COMPOSITION.

Beeswax (best yellow) 90 parts.
Spirits of turpentine 900 "
Animal charcoal (ivory black) 50 "
Indigo 5 "
Prussian blue 10 "

Melt the wax in a suitable vessel, reduce the other ingredients to the finest possible powder, intimately mix them in the dry state, and stir into the hot solution of wax in spirits of turpentine. Cool gradually with constant stirring, and pack into boxes for sale.

RESTORING GERMAN GILT.

The following varnish is useful for restoring tarnished German-gilt picture frame moulding:

Gamboge 30 grs.
Dragon's blood 240 grs.
Powder the above and then add:
Turmeric 30 grs.
Shellac 2½ oz.
Sandrac 2½ oz.

Place the whole of the above in a bottle, and add 2 ounces dry oil of turpentine; shake often, keeping in a warm place for fourteen days; filter, and add 1 ounce clear mastic varnish as above.

A SEPIA DENTRIFICE.

A very good dentrifice is that which has come to our knowledge from private sources, and which bears the above not too appropriate title. The oss. sepia is the prominent ingredient.

Oss. sepia, pulverized 4 oz.
Creta *precip.* 1½ oz.
Rad. irid. *florent.*, pulv. 2½ oz.
Ol. rhodi 25 m.
" limonis 10 m.
Tinct. carmine q.s.

Mix the first three ingredients, and color to a pale rose tint with the carmine solution; then add the essential oils; rub the whole together in a large mortar, sift, and put up in small ornamental boxes.—*Magazine of Pharmacy*.

PURGATIVE COFFEE.

Infusion of coffee, 60 grammes; simple syrup, 35 grammes; scammony, .80 centigramme; citrate of soda, 25 grammes; gum arabic, in powder, 8 grammes. Triturate the scammony with the gum, dissolve the citrate in the infusion, add the syrup, and mix altogether. To be taken frequently.—*Bolletim do Centro Pharmaceutico Portuguez*.

NEW LIQUID CEMENT.

In 125 parts of acetic acid dissolve 100 parts of Russian isinglass. In another vessel dissolve 20 parts gelatin in 125 parts of water, by the aid of heat. Mix the solutions little by little, with constant agitation, and finally add 20 parts of a strong alcoholic solution of shellac.

MEDICATED BOUGIES—ALUM AND TANNIN.

The *Nederlandische Tijdschrift der Pharmacie* gives the following (*National Druggist*):

Alum Bougies.

Macerate for fifteen minutes 5 parts of gelatin in 35 parts of water, then add 10 parts of glycerin and heat until the gelatin is dissolved. Evaporate down to 40 parts, taking care not to let the liquid come to ebullition, as otherwise the gelatin loses its power of solidifying. This may be effected by interposing a wire net work at a distance between the lamp and the capsule. Add to the hot mass 8 parts of alum dissolved in 25 parts of water. This will cause a coagulation of the gelatin, but on continuing the heat it will again dissolve. Evaporate down to 64 parts, pour into moulds and let cool. Each bougie contains 12½ per cent of alum.

Tannin Bougies.

Macerate 5 parts of gelatin in 20 parts of water for fifteen minutes. Add 25 parts of glycerin and heat until solution is complete. When this is effected add 2 parts

of tannin dissolved in 10 parts of hot anhydrous glycerin. As in the case of alum, a coagulation will take place, and disappear on continuation of the heat. Continue the heat until the water is driven off, then pour into moulds and put the latter at once in the ice box. By following this method, the resultant bougies are entirely transparent. The point of elimination of the water may be determined either by weighing or by letting a drop fall on some cold object. If it remains transparent, evaporation has proceeded far enough.

CURRY POWDERS.

1. (said to be true Indian curry).

Coriander seed 360 grains
Turmeric 100 grains
Fresh ginger 260 grains
Cumin seed 18 grains
Black pepper 54 grains
Poppy seed 94 grains
Cinnamon 20 grains
Cardamom 40 grains
Cloves 20 grains
One-half coconut, grated.

All but the coconut to be ground together.

In order to obtain good results the material should be selected with great care.

2. (Said to be Dr. Kitchener's.)

Coriander seed 3 ounces
Turmeric 3 ounces
Black pepper 1 ounce
Mustard 1 ounce
Ginger 1 ounce
Allspice 4 drachms
Cardamom 4 drachms
Cumin seed 2 drachms

Reduce to a fine powder, mix thoroughly, and preserve in well stoppered bottles.

3. (Also given out as true East Indian curry.)

Coriander seed, powdered.. 8 ounces
Allspice, powdered 2 drachms
Mace, powdered 2 drachms
Caraway, powdered 2 drachms
Fennel, powdered 2 drachms
Celery seed, powdered 2 drachms
Turmeric, powdered 8 ounces
Black pepper, powdered 1 ounce
Capsicum, powdered 4 drachms
Mustard, powdered 2 ounces
Ginger, powdered 1 ounce

—*Bulletin of Pharmacy*.

AMERICAN METAL POLISHING PASTE

Bohemian Tripoli powder... 1 lb.
Spanish whiting 1 lb.
Commercial red oxide of iron.. ½ lb.
Common petrolin—burning oil 1 ounce
Glycerine q. s.
Water q. s.
Oil of citronella ½ ounce

Thoroughly mix the powders, then add the petrolin, etc.—*Mag. Pharmacy*.

CRYSTALLIZED GLYCERINE.

At a recent meeting of the Society of Public Analysts, E. J. Bevan exhibited some specimens of crystallized glycerine. He said that some time ago some glycerine had been submitted to him which

consisted of a mass of small crystals resembling soft sugar. He had found that by dropping a small quantity of the crystals into ordinary glycerine, kept at a temperature of about 15° C., fresh crystals are formed at a considerable rate. Mr. Bevan said that the glycerine above the crystals, or mother liquor, was weaker than the original glycerine, and, of course, much weaker than the crystals. Prof. Dewar had obtained solid glycerine resembling glass by cooling with the aid of solid carbonic acid and ether.

Mr. Bodner said that a sample of glycerine existed some years back at Guy's Hospital, which was absolutely solid, no mother liquor, the material being like a piece of ice.

TO REMOVE IODOFORM ODOR FROM MORTARS.

It is said that the odor of iodoform may be completely removed from mortars, spatulas, and other utensils used in compounding iodoform combinations, by simply adding a little turpentine to the water used in washing, with soap, and rinsing well. This might be found useful in removing the odor of iodoform from the hands.

LEMON SYRUPS.

The *Zeitschrift f. d. g. Kohlensäure Industrie* gives the following formulæ for soda-water syrup of lemon peel:

Cut into fine pieces the peels of two large lemons, and rub up with 60 gm. milk sugar, and 500 c.cm. of hot simple syrup. Let cool, keeping up a constant agitation, and when quite cold add the expressed juice of the lemons to which has previously been added 7.5 c.cm. of a 50 per cent. solution of citric acid. Then add sufficient simple syrup to bring the whole up to four litres.

ANOTHER FORMULA.

Lemons.....	S
Alcohol.....	120 c.cm.
Citric acid solution (50 per cent.)	60 c.cm.
Sugar.....	4750 gm.
Water.....	5000 gm.
Albumen, q.s.	

Peel the lemons, chop the peelings fine, and exhaust with the alcohol. Press out the juice and add to the alcoholic extract. Add the sugar and water, and make a syrup, using only a mild heat in doing so. After it cools off add the solution of citric acid. Beat up the white of eight eggs to a stiff foam, and stir into the syrup. Finally, apply sufficient warmth to coagulate the albumen, and strain.—*National Druggist*.

BROMNITROBENZENE.

J. H. Coste and E. J. Parry publish a paper in the current number of the *Berichte*, on the nitration of brombenzene. They show that, contrary to the usual statements in other original papers and text books, very large quantities of the ortho-compound are formed. Experi-

menting in several different methods, the authors show that the ratio of parabrom-nitrobenzene to the corresponding ortho-compound is nearly constant, namely, about 2 to 1. An exact quantitative method for separating the isomers is described. It appears evident that the methods of separating the two bodies adopted by other workers have been inexact.—*British and Colonial Druggist*.

IODOGALLATE OF BISMUTH.

According to Frizzi, this salt may be prepared as follows: Dissolve with heat 30.4 grams of bismuth in 100 grams of equal weight of strong nitric acid and water; add to the solution 500 c.c. of boiling water, and pour into the liquid with constant agitation the following mixture made hot: 16.6 grams potassium iodide, 18.8 grams gallic acid, 300 c.c. distilled water. Collect the precipitate, and wash with a cold saturated aqueous solution of gallic acid. Dry at a moderate temperature in dry air. Iodogallate of bismuth forms a grayish-green amorphous odorless powder insoluble in water, alcohol, and ether, soluble in dilute mineral acids and in fixed alkalis. It forms a good antiseptic.—(*Bolletino Chimic Farmaceut*)—*Pharmaceutical Journal*.

MEDICATED GELATIN PENCILS.

The following basis and method is recommended by Montier for the preparation of gelatin crayons: 60 grams of water and 10 grams of glycerin are placed in an enamelled dish, and the medicament dissolved in the liquid which is heated to boiling; to the boiling solution 100 grams of gelatin is added, with constant stirring to prevent its adhering to the bottom of the vessel. When the water is almost evaporated and the paste flows with difficulty in the capsule, it is run into suitable moulds of gun metal, or into glass tubes previously oiled. The author has devised an ingenious arrangement, in which the tubes are surrounded by a water-bath, thus keeping the paste fluid until they are filled. The moulds are then cooled, and the mass withdrawn, trimmed, and exposed to the air to dry for twenty-four hours.—(*Répert*)—*Pharmaceutical Journal*.

EUROPHEN AS AN ALTERANT.—Europhen (*National Med. Rev.*) possesses many of the properties of iodine without its odor and poisonous properties. It possesses many advantages over iodoform, among which may be mentioned its freedom from odor and toxic effects. It might be called an alterant and protectant. It liberates free iodine in the presence of heat and moisture.

BAPTITOXINE, CYTISINE, ULEXINE, SOPHORINE, according to Plugge (*Arch. d. Pharm.*), all found in baptisia tinctoria by various investigators, are identical, and hence only four different names for the same substance.

Photographic Notes

CHOICE OF PHOTOGRAPHIC APPARATUS.—To the chemist who is desirous of taking up photography, and to the customer also, size of apparatus is an important consideration. The principal sizes are:

3½ by 3½ inches	Lantern-plate size.
*4½ " 3½ "	Quarter-plate size.
5 " 4 "	
6½ " 3½ "	A stereoscopic size.
*6½ " 4½ "	" "
7 " 5 "	Half plate
7½ " 5 "	
*8½ " 6½ "	Whole plate.
10 " 8 "	
15 " 12 "	

Those marked with an asterisk are the usual and most common sizes, and the dimensions given above are the actual sizes of the plates used; the cameras, of course, will measure a little more. I do not recommend any size not marked with an asterisk, except under exceptional circumstances.—*Foto-File in Pharmaceutical Journal*.

PRACTICAL HINTS.—An English firm of plate workers publish the following hints, which apply with equal force to all makes of dry plates: Open only in a ruby light. Keep cool and dry. Do not wet the plate before development. Do not drop plate into developer. Do not use Pyro developer for a second plate. Lay the dry plate in dry dish and pour developer over it in one sweep, taking care plate is well covered. Rock dish occasionally during development. Test your developing light, your camera, your dark slides, your shutter, however "safe" you may consider your light. Do not expose plates to it more than is absolutely necessary. Have a cover for dish during development. Do not fix plate directly you see enough detail, but give enough time to acquire density also. Fix thoroughly, and always use alum bath after fixing. Do not expose plate to white light until this has been done. In warm weather use alum bath before fixing. Have all your solutions and washing water as nearly same temperature as possible, and under 60 degrees if you can; differences of temperature tend to produce frilling; warm developer induces fog and flatness; very cold developer takes a long time to act, and may be used stronger.

BACKING FOR PLATES.—At the present time there is considerable demand for plate backings, which can be easily applied and as readily removed. There are two distinct kinds, one a solution or paste which is applied to the back of the plate, and the other a sheet of paper or cloth coated with some sticky substance which can be temporarily affixed to the back of the plate, and then removed before development, and can be used over again.

The first kind includes collodions, varnishes, and caramels.



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Pyroxylin.....	5 grs.
Methylated spirit.....	1 oz.
ether.....	1 oz.
Coralline rouge or amine.....	10 grs.

Allow to stand for three days, shaking occasionally, then decant from any undissolved precipitate and bottle.

VARNISH FOR BACKING PLATES.

Gum sandarac.....	1 1/2 ozs.
Castor oil.....	1 1/2 ozs.
Methylated spirit.....	5 ozs.
Dragon's blood.....	150 grs.
or Aurine.....	75 grs.

Macerate for a week and apply to the back of the plate with a pad.

These need not be removed prior to development.—*Pharmaceutical Journal*.

NOVEL USE FOR OLD FILTERS.—A correspondent of the *Amateur Photographer* suggests the use of a disused filter for keeping a stock solution of sodium hyposulphite ready for use. The crystals are placed in the upper chamber of the filter, which is then filled with water. The solution filters through into the lower compartment gradually, is kept free from dust, and can be drawn off by the tap as required. The same idea will suggest itself to pharmacists as being capable of application in the preparation of other stock solutions, such as certain syrups, mucilages, etc., etc.

A SIMPLE PHOTO-ENGRAVING METHOD.

—W. H. Hyslop gives the following explicit instructions, by following which he claims that any one familiar with dry plate photography may produce half-tone printing blocks. Take any of the slower brands of gelatin films—that is, those coated on celluloid—and expose behind a ruled screen in the usual way, giving, of course, a much shorter exposure than given for wet collodion. Develop the plate with the usual pyro-soda formulae sent out by the plate makers, and fix in hypo-soda. Wash thoroughly, and while this is proceeding make up a very hot and saturated solution of chrome alum, and have it in a deep tray. When the washing is completed, plunge the negative into the hot alum solution and keep it there for five or ten minutes, when it will swell where it has not been exposed to the light and remain sunken where it has been exposed. From this solution the plate is taken and washed; it is then placed in a strong solution of chloride of aluminium for ten minutes, then washed again and dried over the stove. When dry it is ready for mounting on the block or for electrotyping. If a small edition of prints is required an electrotype is unnecessary, because the film is already as hard and as difficult to injure as a copper block. It only remains, therefore, in this case to mount the film on a type-high block with celluloid cement, as used for celluloid electrotypes, and it will stand all the impressions desired. Where a large edition is desired the film may be sent to the electrotypers, and manipulated in the

usual way. There is no doubt, concludes Mr. Hyslop, but that this is the process of the future, being quicker, simpler, and cheaper than the present methods; indeed it seems impossible that cuts can ever be made at a less price than by this method.—*Inland Printer*.

CONDENSATION OF DARK LIGHT.

According to G. le Bon, dark light (*la lumière noire*) possesses several properties resembling those of electricity. He assumed, therefore, that it should be possible to condense the rays on the surface of metallic plates, which they would then traverse and act upon the photographic plates placed behind in the dark. Experiments have shown that this hypothesis is based on fact. Thin sheets of copper and lead were placed in photographic printing frames, and one face of each exposed to the light of an electric arc for an hour. They were then placed in darkness for two hours, the sheets of metal removed, and their non-exposed faces placed together, with a sensitive plate and the object to be copied between them. After leaving the whole apparatus in darkness for five or six hours, a perfect image of the object appeared on developing the plate, the light condensed upon the outer surface of the copper sheet having apparently traversed the metal and produced the impression on the sensitive film. Care was taken to prevent the effects of heat, contact, or pressure, and it was ascertained that no action took place if the sheets of metal were covered with black paper whilst exposed to light. It is considered that the rays of so-called "dark light" differ entirely from the Röntgen rays and others. The "X" rays pass through black paper and organic bodies, but not through most metals, and they are neither reflected nor refracted. On the other hand, the author's experiments prove that radiations from luminous bodies falling upon metallic surfaces cannot traverse black paper nor most organic substances, but they pass through many metals and, like electricity, are capable of being condensed and can diffuse themselves on the metallic surface. Invisible variations from fluorescent bodies also differ, having been shown by d'Arsonval and Becquerel to pass through metals, and be capable of both refraction and reflection. The radiations given off by certain fishes and animals in the dark somewhat resemble the last-named, but are unable to penetrate metals, especially aluminium.—*Comp. rend. (Pharmaceutical Journal)*.

How to Take a Photograph.

When a man gets hold of a camera for the first time he is very much like a child with a new toy, and nothing will content him till he has tried it, but this is rather a mistake. The first thing to do is to learn all the parts of the camera and their various uses.

The various parts of the camera are

the baseboard, the lens, the bellows, and the back. The baseboard is that part which bears the tripod or screw hole to affix it to the tripod head. Sometimes the baseboard is perforated and a brass ring let in on which the whole camera may be turned, and to which the legs can be affixed; this is a saving of weight sometimes, as the brass weighs less than the wood which it replaces; in other cases, however, it does not decrease the weight at all.

When fixing the camera to the tripod head it should be so arranged that the lens is directly over one of the legs, so that when working the operator can stand between the other two legs, and thus manipulate the camera without any trouble. If the camera is arranged in this way, not the slightest difficulty will be found in adjusting it to any position; for instance, suppose on examining the image on the ground glass you find that the horizon line is too high, by merely drawing the front leg a little towards you the horizon line is lowered, and *vice versa*. Then, again, suppose that the horizon does not appear straight, one of the side legs can be stretched further out or drawn in without any trouble.

The position of the horizon line, as regards the base of the picture, that is, the focusing screen, of course, may be altered also by raising or lowering the lens bearing front, a movement which is fitted to all good-class cameras, but this should not be used unless absolutely necessary, as it is an accepted axiom that the axis of the lens should always be in a line with the centre of the focussing screen. Most cameras are also fitted with what is called a cross front, that is, a sliding movement from right to left. This enables one to slightly alter the point of view; that is, by shifting the cross front to the right we include a little more subject on the right. This movement should also be sparingly used for the same reason as stated above, which is easily explicable from the following diagram: Let A, B, C, D represent our plate; it is obvious that whichever way the plate is turned it will be contained in the inner circle. Now, if we assume the outer circle to be the entire circle of light transmitted by the lens when it is central with centre O of the plate, it is obvious that shifting the lens either right or left must bring the plate nearer the margin of the field where the definition and the illumination are poorer, and, therefore, the lens must be stopped down more.

The back of the camera is generally made what is called reversible, that is to say, it can be turned so that the longer base of the plate can be turned either horizontal or vertical. With the old form of camera it was necessary to unscrew the camera and turn it bodily over. Beside this movement the back should possess a swing, that is, it should be possible to swing the top or bottom in or out. The advantage of this is that when we wish to include a very high building it is neces-

sary sometimes to tilt the camera, and if the back were kept in the normal position the lines of the building would, instead of being parallel, be convergent.

There is now only one part of the apparatus we have not dealt with, and that is the dark slide. The dark slide is nothing more than a shallow box made generally to contain two sensitive plates back to back, with a piece of black card or blackened metal in between to prevent the light striking through from one plate to the other. There are two principal forms, the solid in which the plates are put in from one side, the first film or sensitive side downwards, then the separating card, and then the second plate film up. The other form of slide is what is called the book form, which opens at one end on a hinge, the plates being laid film side down, the card being placed on one, and then the slide closed again. It is, of course, almost unnecessary to repeat that the slides must be filled in the dark room. After filling the slides it is always advisable to make sure that you have not placed the plates the wrong way round in the slide, that is, with the glass side towards the lens, and to determine this it is just as well to draw up the sliding part, the so-called shutter, about an inch and just look at the plate; it will be found that if the right or film side is towards you it will look somewhat dull, and without the shine of glass.

We now come to the question of plates. For the beginner undoubtedly the slow plate, usually called the "ordinary," is the best; the "rapid" and "extra rapid" may be left till general experience is gained. It would be invidious to single out any particular make, but any one of the leading brands should be obtained and adhered to till a good result is obtained; chopping and changing from one plate to another, and from one developer to another, is ruin to successful work at first. As experience is gained every plate and every developer may be and should be tried in turn.

Having decided on the particular brand of plate and filled your dark slides, you will naturally look out for a subject, and it is almost ten chances to one that you choose a portrait. Well, if you want to mortally weary and offend anyone, by all means ask them to sit to you; by the time you are ready to expose, their temper and patience will be all gone. There is hardly any subject in photography which is so difficult as portraiture, especially portraiture at home, therefore do not attempt portraiture as your first subject.

Set your camera up at an open window at the back of your house, and learn thoroughly the result of every movement on the camera. When you are thoroughly conversant with every movement and the action of the diaphragm, then begin to look about for a subject. We will suppose for the occasion that you can see from your back windows the backs of a row of houses, then focus these as sharply as you can. Do not look at the centre of the screen, but, placing the head about nine

inches from the ground glass—the head and camera being covered with the focussing cloth to keep out the glare of light—choose some point about midway between the centre and the margin of the screen, and, with the full aperture of the lens, focus this, that is, rack the camera in or out till it appears sharp. When this is sharp examine the centre and the extreme margins; probably they will be indistinct. Then insert the stops in the lens, commencing with the largest, till satisfactory definition is obtained. Now cap the lens, turn back the focussing screen and insert the dark slide; cover it with the focussing cloth and withdraw the sliding shutter, and everything is ready for making the exposure.

The problem of correct exposure has not inaptly been dubbed the *pons asinorum* of photography. It is the most difficult thing to correctly estimate. There are numerous instruments in the market for correctly estimating exposure, and one of the most satisfactory is Watkin's exposure meter, sold by R. Field & Co., 142 Suffolk street, Birmingham. The principle of this is the darkening of a specially prepared bromide paper to a standard tint, and then by the use of a series of sliding scales the correct exposure is found.

Exposure is determined by numerous factors, the principal of which are (a) the rapidity of the plate; (b) the actinic power of the light; (c) the aperture of the lens. We have already commented on the aperture of the lens. The rapidity of the plate is estimated unfortunately by various methods, but we will assume that we are going to use a slow landscape plate, such as an Ilford ordinary. The actinic power of the light varies with the latitude of the place, the state of the atmosphere, the time of day, etc. And as some guide we give Scott's table of the variation in actinic power of the light for the different months of the year and times of the day.

We will, however, proceed to practically test the exposure. Suppose we have set up the camera at a window with the lens stopped down to F. 45, using an ordinary plate, this time of the year, midday, with the sun shining. We will draw the sliding shutter of the dark slide just about one-fourth of the way out; we uncap the lens for a quarter of a second and replace it. Now we withdraw the shutter another fourth, and give another quarter of a second, and again cap the lens, and repeat this till the whole plate is exposed; we shall find on exposure that we have a negative with four strips of totally different character, and we shall soon be able to determine which is the correctly exposed strip. This gives us a guide to work from. A correctly-exposed negative should have little or no bare glass in it, even in the deepest shadows, and a gradually increasing deposit throughout all the half tones of the picture to a dense deposit in the sky, the highest light.

To all beginners we strongly recommend that they try to see a correctly exposed and developed negative, and in these days of photographic societies and

papers it will not be difficult to find somebody who can show you such a negative.—*Pharmaceutical Journal*.

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AWOOROF, Bermuda, lb.	50	55
Vincent, lb.	15	18
AM, Fir, lb.	40	45
opaiba, lb.	65	75
ru, lb.	3 75	4 00
olu, can or less, lb.	95	1 00
BK, Barberry, lb.	22	25
nyberry, lb.	15	18
ickthorn, lb.	15	17
unella, lb.	15	17
ascara, Sagrada.	25	30
scarilla, select, lb.	18	20
ssia, in mats, lb.	18	20
inchona, red, lb.	60	65
Powdered, lb.	65	70
Yellow, lb.	35	40
Pale, lb.	40	45
m, selected, lb.	18	20
Ground, lb.	17	20
Powdered, lb.	20	28
emlock, crushed, lb.	18	20
uk, white, crushed lb.	15	17
ange peel, bitter, lb.	15	16
ickly ash, lb.	35	40
ssafras, lb.	15	16
ap (quillaya), lb.	13	15
ild cherry, lb.	13	15
BESS, Calabar, lb.	45	50
nka, lb.	1 50	2 75
nilla, lb.	8 50	9 00
BRIES, Cubeb, sifted, lb.	30	35
powdered, lb.	35	40
niper, lb.	7	10
Ground, lb.	12	14
ickly ash, lb.	40	45
BUS, Balm of Gilead, lb.	55	60
ssia, lb.	25	30
BUTER, Cacao, lb.	75	80
CAPHOR, lb.	65	75
CHARIIDES, Russian, lb.	1 40	1 50
wdered, lb.	1 50	1 60
CALCIUM, lb.	25	30

Powdered, lb.	\$ 30	35
CARBON, Bisulphide, lb.	17	18
CARMINE, No. 40, oz.	40	50
CASTOR, Fibre, lb.	20 00	20 00
CHALK, French, powdered, lb.	10	12
Precip., see Calcium, lb.	10	12
Prepared, lb.	5	6
CHARCOAL, Animal, powd., lb.	4	5
Willow, powdered, lb.	20	25
CLOVE, lb.	16	17
Powdered, lb.	17	18
COCHINEAL, S.G., lb.	40	45
COLLOIDION, lb.	75	80
Cantharidal, lb.	2 50	2 75
CONFECTION, Senna, lb.	40	45
CREOSOTE, Wood, lb.	2 00	2 50
CUTTLEFISH BONE, lb.	25	30
DEXTRINE, lb.	10	12
DOYER'S POWDER, lb.	1 50	1 60
ERGOT, Spanish, lb.	75	80
Powdered, lb.	90	1 00
Ergotin, Keith's, oz.	2 00	2 10
EXTRACT LOGWOOD, bulk, lb.	13	14
Pounds, lb.	14	17
FLOWERS, Arnica, lb.	15	20
Calendula, lb.	55	60
Camomile, Roman, lb.	25	30
German, lb.	40	45
Elder, lb.	20	22
Lavender, lb.	12	15
Rose, red, French, lb.	1 00	2 00
Rosemary, lb.	25	30
Saffron, American, lb.	95	70
Spanish, Val'a, oz.	1 00	1 25
GELATINE, Cooper's, lb.	75	80
French, white, lb.	35	40
GLYCERINE, lb.	22	25
GUARANA, lb.	200	2 25
Powdered, lb.	2 25	2 50
GUM ALOES, Cape, lb.	18	20
Barbadoes, lb.	30	50
Socotrine, lb.	65	70
Asafoetida, lb.	40	45
Arabic, 1st, lb.	70	75
Powdered, lb.	80	95
Sifted sorts, lb.	45	50
Sorts, lb.	30	35
Benzoin, lb.	50	1 00
Catechu, Black, lb.	9	20
Gamboge, powdered, lb.	1 20	1 25
Guaiaac, lb.	50	1 00
Powdered, lb.	90	95
Kino, true, lb.	2 00	2 25

Myrrh, lb.	\$ 45	\$ 48
Powdered, lb.	55	60
Opium, lb.	3 80	00
Powdered, lb.	4 75	5 00
Scammony, pure Resin, lb.	12 50	13 00
Shellac, lb.	40	45
Bleached, lb.	45	50
Spruce, true, lb.	30	35
Tragacanth, flake, 1st, lb.	85	90
Powdered, lb.	1 10	1 25
Sorts, lb.	55	70
Thus, lb.	8	10
HERB, Althea, lb.	27	35
Bitterwort, lb.	30	40
Burdock, lb.	16	18
Boneset, ozs, lb.	15	17
Catnip, ozs, lb.	17	20
Chiretta, lb.	25	30
Coltsfoot, lb.	20	38
Feverfew, ozs, lb.	53	55
Grindelia robusta, lb.	45	50
Horehound, ozs, lb.	18	20
Jaborandi, lb.	45	50
Lemon Balm, lb.	38	40
Liverwort, German, lb.	38	40
Lobelia, ozs, lb.	15	20
Motherwort, ozs, lb.	20	22
Mullein, German, lb.	17	20
Pennyroyal, ozs, lb.	18	20
Peppermint, ozs, lb.	21	22
Rue, ozs, lb.	30	35
Sage, ozs, lb.	18	20
Spearmint, lb.	21	25
Thyme, ozs, lb.	18	20
Tansy, ozs, lb.	15	18
Wormwood, oz.	20	22
Yerba Santa, lb.	38	44
HONEY, lb.	13	15
Hops, fresh, lb.	20	25
Indigo, Madras, lb.	75	80
INSECT POWDER, lb.	30	32
ISINGLASS, Brazil, lb.	2 00	2 10
Russian, true, lb.	0 00	6 50
LEAF, Aconite, lb.	25	30
Bay, lb.	18	20
Belladonna, lb.	25	30
Buchu, long, lb.	50	55
Short, lb.	25	27
Coca, lb.	35	40
Digitalis, lb.	13	20
Eucalyptus, lb.	18	20
Hyoscyamus	20	25
Matico, lb.	70	75

Scum, Alexandria, lb.	\$ 25	\$ 30	Queen of the Meadow, lb.	\$ 18	\$ 20	Valerianate, oz.	\$ 55	\$ 60
Tinnevely, lb.	15	25	Rhatany, lb.	20	30	AMYL, Nitrite, oz.	16	18
Stramonium, lb.	20	25	Rhubarb, lb.	75	2 50	ANTINERVIN, oz.	85	00
Uva Ursi, lb.	15	18	Sarsaparilla, Hond, lb.	40	45	ANFIKAMNIA,	1 30	1 35
LEECHES, Swedish, doz.	1 00	1 10	Cut, lb.	50	55	ANTIPIRYN, oz.	1 10	1 20
LICORICE, Solazzi,	45	50	Senega, lb.	55	65	ARISTOL, oz.	1 85	2 00
Pignatelli,	35	40	Squill, lb.	13	15	ARSENIC, Donovan's sol., lb.	25	30
Grasso,	30	35	Stillingia, lb.	22	25	Fowler's sol., lb.	10	13
V & S—Sticks, 6 to 1 lb., per lb.	27	30	Powdered, lb.	25	27	Iodide, oz.	50	55
" Purity, 100 sticks in box	75	75	Unicorn, lb.	38	40	White, lb.	6	7
" Purity, 200 sticks in box	1 50	1 50	Valerian, English, lb. true.	20	25	ATROPINE, Sulp. in $\frac{1}{2}$ ozs. Soc.,	6 00	6 25
" Acme Pellets, 5 lb. tins	2 00	2 00	Virginia, Snake, lb.	40	45	oz.	35	40
" Lozenges, 5 lb. tins	2 00	2 00	Yellow Dock, lb.	15	18	BISMUTH, Ammonia-citrate, oz.	50	55
" Tar, Licorice, and Tolu.	2 00	2 00	RUM, Bay, gal.	2 50	2 75	Iodide, oz.	20	25
5 lb. tins.	30	35	Essence, lb.	3 00	3 25	Salicylate, oz.	1 80	2 00
LUPULIN, oz.	70	80	SACCHARIN, oz.	1 25	1 50	Subcarbonate, lb.	1 50	1 60
LYCOPodium, lb.	1 20	1 25	SEED, Anise, Italian, sifted, lb.	13	15	Subnitrate, lb.	7	8
MACK, lb.	1 60	1 75	Star, lb.	35	40	BORAX, lb.	8	9
MANNA, lb.	9	10	Burdock, lb.	30	35	Powdered, lb.	8	9
Moss, Iceland, lb.	12	13	Canary, bag or less, lb.	5	6	BROMINE, oz.	8	13
Irish, lb.	46 00	50 00	Caraway, lb.	10	13	CADMIUM, Bromide, oz.	45	50
MUSK, Tonquin, oz.	21	25	Cardamom, lb.	1 25	1 50	Iodide, oz.	55	60
NUTGALLS, lb.	25	30	Celery,	25	30	CAFFEINE, oz.	45	50
Powdered, lb.	1 00	1 10	Colchicum,	50	60	Citrate, oz.	1 50	1 60
NUJMEGS, lb.	10	12	Coriander, lb.	10	12	CALCIUM, Hypophosphite, lb.	95	1 00
NUX VOMICA, lb.	25	27	Cumin, lb.	15	20	Iodide, oz.	35	38
Powdered, lb.	12	15	Fennel, lb.	15	17	Phosphate, precip., lb.	5	6
OAKUM, lb.	70	75	Fenugreek, powdered, lb.	7	9	Sulphide, oz.	10	12
OINTMENT, Merc., lb. $\frac{1}{2}$ and $\frac{1}{2}$.	45	50	Flax, cleaned, lb.	3 1	4	CERIUM, Oxalate, oz.	15	18
Citrine, lb.	20	22	Ground, lb.	4	5	CHINIDINE, oz.	1 25	1 30
PARALDEHYDE, oz.	12	13	Hemp, lb.	5	6	CHLORAL, Hydrate, lb.	75	80
PEPPER, black, lb.	15	16	Mustard, white, lb.	11	12	Croton, oz.	60	1 90
Powdered, lb.	3	4	Powdered, lb.	15	20	CHLOROFORM, lb.	25	30
PITCH, black, lb.	10	12	Pumpkin,	25	30	CINCHONINE, sulphate, oz.	15	20
Bergundy, true, lb.	- 25	3 25	Quince, lb.	65	70	CINCHONIDINE, Sulph., oz.	5 50	6 50
PLASTER, Calcined, bbl. cash.	12	13	Rape, lb.	8	9	COCAINE, Mur., oz.	70	75
Adhesive, yd.	65	70	Strophanthus, oz.	50	55	CODIA, $\frac{1}{2}$ oz.	65	70
Belladonna, lb.	80	85	Worm, lb.	22	25	COLLOIDIN, lb.	6	7
Galbanum Comp., lb.	25	30	SEIDLITZ MIXTURE, lb.	25	30	COPPER, Sulph., (Blue Vitriol) lb.	65	70
Lead, lb.	1 00	1 10	SOAP, Castile, Mottled, pure, lb.	10	12	Iodide, oz.	1	3
POPPY HEADS, per 100.	2 1	3	White, Conti's, lb.	15	16	COPPERAS, lb.	1 60	1 65
ROSIN, Common, lb.	3 1	4	Powdered, lb.	25	40	DIURETIN, oz.	75	80
White, lb.	25	30	Green (Sapo Viridis), lb.	25	25	ETHER, Acetic, lb.	40	50
RESORCIN, white, oz.	28	30	SFERMACETI, lb.	65	70	Sulphuric, lb.	1 00	1 10
ROCHELLE SALT, lb.	22	25	TURPENTINE, Chian, oz.	75	80	EXALGINE, oz.	25	30
ROOT, Aconite, lb.	30	35	Venice, lb.	10	12	HYOSCYNINE, Sulp., crystals, gr.	4 75	5 50
Althea, cut, lb.	25	30	WAX, White, lb.	50	75	IODINE, lb.	6 00	7 00
Belladonna, lb.	15	16	Yellow,	40	45	IODOFORM, lb.	1 40	1 50
Blood, lb.	27	30	WOOD, Guaiac, rasped.	5	6	IRON, by Hydrogen.	80	85
Bitter, lb.	15	18	Quassia chips, lb.	10	12	Carbonate, Precip., lb.	15	16
Blackberry, lb.	18	20	Red Saunders, ground, lb.	5	6	Sacch., lb.	45	55
Burdock, crushed, lb.	20	25	Santal, ground, lb.	5	6	Chloride, lb.	13	16
Calamus, sliced, white, lb.	30	35	CHEMICALS.				90	1 00
Canada Snake, lb.	15	20	ACID, Acetic, lb.	12	13	Citrate, U.S.P., lb.	70	75
Cochos, black, lb.	40	45	Glacial, lb.	20	25	And Ammon., lb.	1 50	3 00
Colchicum, lb.	20	22	Benzoic, English, oz.	10	12	And Quinine, lb.	18	30
Columbo, lb.	25	30	German, oz.	13	14	Quin. and Stry., oz.	50	55
Powdered, lb.	38	40	Boracic, lb.	28	30	And Strychnine, oz.	55	60
Coltsfoot, lb.	13	14	Carbolic Crystals, lb.	2 10	2 15	Dialyzed, Solution, lb.	25	30
Comfrey, crushed, lb.	15	18	Calvert's No. 1, lb.	1 35	1 40	Ferrocyanide, lb.	40	45
Curcuma, powdered, lb.	15	20	No. 2, lb.	45	50	Hypophosphites, oz.	40	45
Dandelion, lb.	15	18	Citric, lb.	10	12	Iodide, oz.	5	6
Elecampane, lb.	22	25	Gallie, oz.	30	35	Syrup, lb.	15	16
Galangal, lb.	9	10	Hydrobromic, diluted, lb.	1 50	1 60	Lactate, oz.	7	9
Gelsenium, lb.	10	12	Hydrocyanic, diluted, oz. bottles	22	25	Pernitrate, solution, lb.	8	10
Gentian or Genitan, lb.	13	15	doz.	3	5	Phosphate scales, lb.	80	85
Ground, lb.	18	20	Lactic, concentrated, oz.	18	20	Sulphate, pure, lb.	13	15
Powdered, lb.	20	22	Muriatic, lb.	10 1	13	Exsiccated, lb.	7	8
Ginger, African, lb.	20	22	Chem. pure, lb.	25	30	And Potass. Tartrate, lb.	80	85
Po., lb.	27	30	Nitric, lb.	75	80	And Ammon Tartrate, lb.	13	15
Jamaica, blechd., lb.	30	35	Chem. pure, lb.	12	13	Carbonate, lb.	35	40
Po., lb.	4 50	4 75	Oleic, purified, lb.	10 1	10	Iodide, oz.	7	9
Ginseng, lb.	75	80	Oxalic, lb.	13	17	LIME, Chlorinated, bulk, lb.	6	7
Golden Seal, lb.	90	95	Phosphoric, glacial, lb.	30	35	In packages, lb.	30	35
Gold Thread, lb.	12	15	Dilute, lb.	75	80	LITHIUM, Bromide, oz.	30	35
Hellebore, white, powd., lb.	18	20	Pyrogallie, oz.	2 1	2 1	Carbonate, oz.	25	30
Indian Hemp,	1 75	2 00	Salicylic, white, lb.	5	6	Citrate, oz.	50	55
Ipecac, lb.	2 00	2 25	Sulphuric, carboy, lb.	18	20	Iodide, oz.	35	40
Powdered, lb.	55	60	Bottles, lb.	80	85	Red, lb.	4	5
Jalap, lb.	60	65	Chem. pure, lb.	38	40	LIME, Chlorinated, bulk, lb.	6	7
Powdered, lb.	40	90	Tannic, lb.	75	80	LITHIUM, Bromide, oz.	30	35
Kava Kava, lb.	12	15	Tartaric, powdered, lb.	10 1	10	Carbonate, oz.	25	30
Licorice, lb.	13	15	Acetanilid, lb.	4	5	Citrate, oz.	50	55
Powdered, lb.	13	18	ACONITINE, grain.	1 1	3	Salicylate, oz.	35	40
Mandrake, lb.	16	40	ALUM, cryst., lb.	3	4	MAGNESIUM, Calc., lb.	18	20
Masterwort, lb.	30	35	Powdered, lb.	10	12	Carbonate, lb.	35	40
Orris, Florentine, lb.	40	45	AMMONIA, Liquor, lb., .880.	80	85	Citrate, gran., lb.	1 25	1 30
Powdered, lb.	40	45	AMMONIUM, Bromide, lb.	14	15	Sulph. (Epsom salt), lb.	85	90
Pareira Brava, true, lb.	30	35	Carbonate, lb.	35	40	MANGANESE, Black Oxide, lb.	1 00	1 10
Pink, lb.	20	25	Iodide, oz.	12	16	MENTHOL, oz.	55	60
Parsley, lb.	15	18	Nitrate crystals, lb.	10	12	MERCURY, lb.	75	80
Pearisy, lb.	15	18	Muriate, lb.	14	15	Ammon (White Precip.)	1 25	1 30
Poke, lb.	15	18		35	40	Chloride, Corrosive, lb.	85	90
				40	45	Calomel, lb.	1 00	1 10
				12	16	With Chalk, lb.	60	65

The New System.

The following druggists have been prompt in adopting the newest and best method of encouraging a cash trade in their stores. Each cash customer receives a printed rebate check issued by the latest National Cash Register. The check is dated, the amount of the purchase printed on it, with a request like this: "Return \$5 in checks and get 25 cents in trade." The register prints a detailed list of the sales as well as giving the day's total sales. Also keeps accurate account of all charges, collections, and disbursements, and so prevents many mistakes. When may we add your name to the list?

H. F. McCarthy, Ottawa.
C. H. Couen, Toronto.
D. M. Waters, Belleville.
W. S. Detlor, Napanee.
R. S. Shilington, Ottawa.
Dickson Drug Co., Jas. Findlay, Pembroke.
John T. Wair, Arnprior.
Jos. Clark, H. H. Hough, Renfrew.
W. H. Medley, Kingston.
M. Patterson, Almonte.
W. G. Smith, Guelph.
R. B. W. Robinson, Ottawa.

Magazines.

FRANK LESLIE'S POPULAR MONTHLY OR JULY.—Many very attractive and beautifully illustrated articles are given in *Frank Leslie's Popular Monthly* for July, and also several excellent short stories. The leading feature is a description of General Robert E. Lee's part in the battles of Fredericksburg and Chancellorsville, written by Colonel John J. Garnett, of the Confederate States Artillery, and forming the sixth paper in the magazine's great "Lee Series." The article is profusely illustrated with portraits and battle scenes. The Isle of Man is described in an interesting article; Mrs. A. A. Stowe writes entertainingly of the Lick Observatory; there is a splendid department for young people, containing short stories and poems, and the continuation of a serial by Horatio Alger, jr.; and there are several other attractive features.

"Surf" Sea Salt

is a new 150 pkg., put up in 1 doz. 5 lb. pkgs. per case. Price, \$1.41 per gross (12 cases) \$17. Wholesale houses sell it. Pkg. is a new patent, cardboard one, and handsomely printed. Sales of first week in Toronto 120 cases. The salt is clear as glass and of a size that dissolves readily. It never gets damp, and contains no dirt or grit. Analyzes 99.25 per cent. pure salt. You can work up a good salt trade if you try. Why not do it?

TORONTO SALT WORKS, Toronto, Importers.

Business Notices.

As the design of the *Canadian Druggist* is to mutually all interest in the business, we would all parties ordering goods, or making purchases of a shipment from houses advertising with us to mention their letter that such acknowledgment was noticed in the *Canadian Druggist*.

The attention of Druggists and others who may be interested in the article advertised in this journal is called to the *Special Compensation* in the Business Notices.

Every one of your customers ought to buy a box of Fanglefoot; they will if you properly urge them. Besides doing yourself a good turn, with the 100 per cent. profit, you are actually conferring a benefit upon your customers, for flies are not only a source of annoyance and uncleanness, but are also a source of danger to health. The more liberally your customers use Fanglefoot, the better the result and the greater a necessity it becomes to them.

Nerlich & Co., Toronto, are advertising on another page The Morell Mackenzie Pipe. This pipe contains in the stem a small roll of soft paper, specially prepared, which serves to absorb all moist substances accumulating in the stem, so unpleasant to every smoker. This roll, properly called cartridge, can be replaced by a fresh one when necessary, and, being of very small cost, adds to the popularity of the article. The Morell Mackenzie pipe is already having a large sale, and every smoker using one will recommend it to his friends.

Some of our readers dealing in this line might find it to their interest to write for samples.

Headquarters Michigan Military Academy,

Orchard Lake, Mich., June 2nd, 1896.
Messrs. F. Stearns & Co., Detroit, Mich.:
GENTLEMEN,—I have the honor to report for your information some observations in regard to the effect of the Kola nut and the liquid preparation (Kola-Stearns) furnished by you for a forced march by a company of cadets from the Michigan Military Academy at Orchard Lake, Mich., to Detroit, Mich., on Saturday, May 23rd, 1896.

A company of forty-one cadets from the academy left Orchard Lake at 4.52 a.m., and reached the Russell house, Detroit, at 12.05 p.m., being seven hours and thirteen minutes marching the entire distance of twenty-eight miles, including rests and twenty-five minutes for lunch.

The actual marching time was six hours and twelve minutes, and the distance, as twice measured by a cyclometer, is 28.07 miles, or at the rate of 4.53 miles per hour while marching—a very remarkable record.

Before starting I gave to one-half of the company the Kola nut, to the other half the liquid preparation (Kola-Stearns). I am convinced that the effect of the nut and your liquid preparation is to stimulate the muscles and permit of sustained exertion, while it allays thirst and hunger. The company felt comparatively well

after the trip with the exception of some stiffness and sore feet; but any other temperature, and no protracted effects of the long march were noticeable.

This was my first experience with the Kola, and while I could not observe its effects on individuals as clearly as I desired, I am of the opinion that it will find favor with those undertaking great physical exertion.

Yours truly,

LIEUT. A. S. HILL.

Captain 12th Infantry, Commandant of Cadets.

Verdict in Soda Apparatus Patent Suit.

The suit of the American Soda Fountain Company against R. M. Green & Sons, Philadelphia, for infringement of Frawer Can patent has been decided in favor of the plaintiff.

The case was tried before Judge Acheson, of the United States Circuit Court, Eastern District of Pennsylvania, who has just handed down the decision as above stated.

Convention of the American Pharmaceutical Association.

Delegates to the American Pharmaceutical Association Convention in Montreal, August 12th, should bear in mind the perfect train service and luxurious appointments of the great Canadian Pacific Railway, which has direct lines for all points to Montreal.

No doubt, this ever popular route will be favored this year as in the past by the patronage of the travelling delegates.

A New Use for Atomizers.

A young New Yorker, salesman for a druggists' sundries house was travelling in the State of Coahuila, Mexico, about two years ago, and went one night to Saltillo. It was the first time he had been in the town, and after transacting a little business he started out to see the sights. As he entered an isolated street, he was suddenly confronted by a brigandish-looking fellow, who, in mongrel Spanish, demanded his valuables. The highwayman held in one hand a long, sinister-looking knife, and waved it about in a suggestive manner which implied the necessity of a ready compliance with his wishes or a tragic result. But the salesman was a man of quick wit and ready resources. Instead of handing over his property he thrust his hand into his pocket, and a moment later the cold, shiny barrel of what seemed to be a revolver was pointed at the would-be robber's head. The surprise caused by the unexpected production of a revolver produced a change in the confident manner with which the robber had confronted the New Yorker, and he started back. Instantly the salesman knocked the knife from his hand, stooped down, picked it up, took the highwayman by the collar before he could

Iodide, Proto, oz.....	\$ 35	\$ 40
Bin., oz.....	25	30
Oxide, Red, lb.....	1 15	1 20
Pill (Blue Mass), lb.....	70	75
MILK SUGAR, powdered, lb.....	30	35
MORPHINE, Acetate, oz.....	1 75	1 80
Muriate, oz.....	1 75	1 80
Sulphate, oz.....	1 80	1 85
PEPSIN, Saccharated, oz.....	35	40
PHENACETINE, oz.....	40	42
PILOCARPINE, Muriate, grain.....	35	38
PIPERIN, oz.....	1 00	1 10
PHOSPHORUS, lb.....	90	1 10
POTASSA, Caustic, white, lb.....	60	65
POTASSIUM, Acetate, lb.....	35	40
Bicarbonate, lb.....	15	17
Bichromate, lb.....	14	15
Birat (Cream Tart.), lb.....	29	30
Bromide, lb.....	65	70
Carbonate, lb.....	12	13
Chlorate, Eng., lb.....	18	20
Powdered, lb.....	20	22
Citrate, lb.....	70	75
Cyanide, lb.....	40	50
Hypophosphites, oz.....	10	12
Iodide, lb.....	4 00	4 10
Nitrate, gran., lb.....	8	10
Permanganate, lb.....	40	45
Prussiate, Red, lb.....	50	55
Yellow, lb.....	32	35
And Sod. Tartrate, lb.....	25	30
Sulphuret, lb.....	25	30
PROPYLAMINE, oz.....	35	40
QUININE, Sulph. bulk.....	35	38
Ozs., oz.....	38	42
QUINIDINE, Sulphate, ozs., oz.....	16	20
SALICIN, lb.....	75	4 00
SANTONIN, oz.....	20	22
SILVER, Nitrate, cryst., oz.....	90	1 00
Fused, oz.....	1 00	1 10
SODIUM, Acetate, lb.....	30	35
Bicarbonate, kgs., lb.....	2 75	3 00
Bromide, lb.....	65	70
Carbonate, lb.....	3	6
Hypophosphite, oz.....	10	12
Hyposulphite, lb.....	3	6

Iodide, oz.....	\$ 40	\$ 43
Salicylate, lb.....	1 00	1 10
Sulphate, lb.....	2	5
Sulphite, lb.....	8	10
SOMNAL, oz.....	85	00
SPIRIT NITRE, lb.....	35	65
STROXTUM, Nitrate, lb.....	18	20
STRYCHNINE, crystals, oz.....	80	85
SULFONAL, oz.....	40	42
SULPHUR, Flowers of, lb.....	2½	4
Pure precipitated, lb.....	13	20
TARTAR EMEIC, lb.....	50	55
THYMOL (Thymic acid), oz.....	55	60
VERATRINE, oz.....	2 00	2 10
ZINC, Acetate, lb.....	70	75
Carbonate lb.....	25	30
Chloride, granular, oz.....	13	15
Iodide, oz.....	60	65
Oxide, lb.....	13	60
Sulphate, lb.....	9	11
Valerianate, oz.....	25	30

ESSENTIAL OILS.

OIL, Almond, bitter, oz.....	75	80
Sweet, lb.....	50	60
Amber, crude, lb.....	40	45
Rect., lb.....	60	65
Anise, lb.....	3 75	3 90
Bay, oz.....	50	60
Bergamot, lb.....	3 75	4 00
Cade, lb.....	90	1 00
Cajuput, lb.....	1 60	1 70
Capsicum, oz.....	60	65
Caraway, lb.....	2 75	3 00
Cassia, lb.....	3 30	3 50
Cedar, lb.....	55	85
Cinnamon, Ceylon, oz.....	2 75	3 00
Citronelle, lb.....	80	85
Clove, lb.....	1 10	1 20
Copaiba, lb.....	1 75	2 00
Croton, lb.....	1 50	1 75
Cubeb, lb.....	2 50	3 00
Cumin, lb.....	5 50	6 00
Erigeron, oz.....	20	25
Eucalyptus, lb.....	1 50	1 75
Fennel, lb.....	1 60	1 75

Geranium, oz.....	\$1 75	\$1 80
Rose, lb.....	3 20	3 50
Juniper berries (English), lb.....	4 50	5 00
Wood, lb.....	70	75
Lavender, Chris. Fleur, lb.....	3 00	3 50
Garden, lb.....	1 50	1 75
Lemon, lb.....	1 90	2 00
Lemongrass, lb.....	1 50	1 60
Mustard, Essential, oz.....	60	65
Neroli, oz.....	4 25	4 50
Orange, lb.....	2 75	3 00
Sweet, lb.....	2 75	3 00
Origanum, lb.....	65	70
Patchouli, oz.....	80	85
Pennyroyal, lb.....	2 50	2 75
Peppermint, lb.....	3 00	3 25
Pimento, lb.....	2 60	2 75
Rhodium, oz.....	80	85
Rose, oz.....	7 50	11 00
Rosemary, lb.....	70	75
Rue, oz.....	25	30
Sandalwood, lb.....	5 50	7 50
Sassafias, lb.....	75	80
Savin, lb.....	1 60	1 75
Spearmint, lb.....	3 75	4 00
Spruce, lb.....	65	70
Tansy, lb.....	4 25	4 50
Thyme, white, lb.....	1 80	1 90
Wintergreen, lb.....	2 75	3 00
Wormseed, lb.....	3 50	3 75
Wormwood, lb.....	4 25	4 50

FIXED OILS.

CASTOR, lb.....	8	10
COD LIVER, N.F., gal.....	2 25	2 30
Norwegian, gal.....	3 00	3 25
COTTONSEED, gal.....	1 10	1 20
LARD, gal.....	90	1 00
LINSEED, boiled, gal.....	62	65
Raw, gal.....	60	62
NEATSFOOT, gal.....	1 20	1 30
OLIVE, gal.....	1 20	1 25
Salad, gal.....	2 50	2 60
PALM, lb.....	12	13
SPERM, gal.....	1 35	1 40
TURPENTINE, gal.....	60	61

escape, and marched him before the police authorities. At the preliminary trial of the would-be robber the following morning the guilt of the prisoner was readily established, and his commitment was about to follow, when he asked if it were not an offence for strangers in the country to carry concealed weapons. He was told that it was. Then the native justice asked the salesman if the charge was true. This was admitted. He then asked if he had still the weapon concealed on his person. The young man said he had, but pleaded that its possession had, the night before, prevented a robbery and possibly a murder. He was informed that such a circumstance did not alter the case, that he had violated the law and must suffer.

The prisoner smiled sardonically on beholding the tight place into which the authorities were seemingly drawing the New Yorker. His mirth, however, turned to disgust when the young man pulled the alleged revolver from his pocket and laid it down before the magistrate, and it proved to be nothing but a cologne-atomizer.—*Baltimore Sun*.

RINGWORM.—Ringworm may be removed by first rubbing briskly with turpentine until smarting is induced, washing with carbolic acid soap (ten per cent.), and finally, after drying, applying two or three coats of tincture of iodine.

Drug Reports.

England.

London, June 20th, 1896.

There has been a fair demand and prices are, on the whole, well maintained. Camphor has sustained a further drop, but is not expected to go much lower. Glycerine is in fair request at recent advance, and the tendency is upward. Otto is easy, as the new crop is expected to give a large yield.

Arsenic unchanged, present high rates remaining firm. Opium unaltered, but prices are likely to advance. Pilocarpine slightly easier again. Mercurials and quicksilver unaltered. Sulphur advanced early in the month, but is now receding. Veratrine is scarce and dearer. Salol has had a big drop in value, owing to competition amongst principal makers. English extracts, such as belladonna, hyoscyamus, etc., are likely to be dearer, as the hot weather has dried up much of the crop. Mitcham oils are also on the up-grade from the same cause. Cod-liver oil is weaker, and it seems as if it will droop further.

The annual profit of the Suez Canal is £3,000,000.

TRY

The Bryant Press

FOR

Drug Labels

Prescription Blank

Drug Envelopes

OR ANY

Printing

THAT YOU MAY REQUIRE

20 Bay Street,
Toronto.

TELEPHONE 237

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VIII.

TORONTO, AUGUST, 1896.

No. 8

"APENTA" THE BEST NATURAL APERIENT WATER.

Bottled at the **UJ HUNYADI**
SPRINGS, Buda Pest, Hungary
Under the absolute control of the Royal
Hungarian Chemical Institute (Ministry of
Agriculture), Buda Pest.

"APENTA" THE BEST NATURAL APERIENT WATER.

"We know of no stronger or more
favorably-constituted Natural Aperient
Water than that yielded by the Uj Hunyadi
Springs."

L. Lieberman

Royal Councillor, M.D., Professor of Chemistry,
and Director of the Royal Hungarian State
Chemical Institute (Ministry of Agriculture),
Buda Pest.

"APENTA" THE BEST NATURAL APERIENT WATER.

Full instructions from the Apollinaris Company,
Limited, now offered to the Trade at

\$5.50 per case of 25 large glass bottles.
\$8.00 " 50 small " "
\$8.00 " 100 glass quarter "

SHOULD THE PRICE OF

"APENTA"

reduced, we guarantee to allow such reduction
to our Buyers on their unsold stock, and as far as
possible, to secure a corresponding reduction to
Retailers upon their unsold stock

SOLE EXPORTERS:

THE APOLLINARIS COMPANY, Ltd.,
LONDON.

CANADIAN SUB-AGENTS:

WALTER R. WONHAM & SONS,
Montreal.

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

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5th of the month.

New advertisements or changes to be addressed

Canadian Druggist,

11 1/2 RICHMOND ST. WEST,

TORONTO, ONT.

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DRUG REPORTS.

Substitution Uncovered.

The co-operative attempt of the whole-
sale and retail druggists' associations, to-
gether with proprietary medicine manu-
facturers, to evolve a satisfactory solution
of the trade difficulty, has brought for-
ward some very peculiar phases of trade.
There does not appear to be the slightest
doubt but all three interests realize the
benefit which would accrue to each by a
restoration of the good, honest old
method of each being allowed to main-
tain unmolested his own department of
commercial enterprise; yet how to bring
such about to the satisfaction of each one
has not been solved. The wholesale and
retail druggists know how they stand to-
wards each other, but up to the present
the retailer, at least, has given very little
consideration to the rights of the parties
of the third part. The Retailers' Associa-
tion has demanded definite terms of
acknowledgment from the manufacturing
and advertising proprietary medicine
dealers, but have given them but little
reciprocal part in the terms of partner-
ship. Many of these men have con-
tributed to the funds of the Retailers'
Association, others have cancelled trade
connections which were worth thousands
of dollars to them to serve the same body,
and yet they have been made to feel that
it was a case of giving without taking.
To illustrate: Dr. Brent Good, the popu-
lar proprietor of Carter's Liver Pills, finds
that in no part of the world containing a
similar number of druggists is there a
greater degree of substituting effort than
is put forth in Canada at the present
time. Within one week, in the city of
Toronto, he secured enough imitations by
direct purchase, when asking for Carter's
Pills, to prove that over one-half of the
demand he creates for his pills is tam-
pered with. In cold, calculative terms it
means that, when he spends two thousand
dollars there in advertising, the druggists
have appropriated over one-half of it to

enable them to palm off some colorable imitation.

Mr. Good has always taken a very active interest in all matters pertaining to the welfare of the retail drug trade, and has given unstintingly of his time and means in support of every worthy organization to promote its prosperity, yet he feels that, apart from voluntary contributions, he should not be expected to devote the bulk of his means to aid retailers in robbing him of his rightful interests. We do not believe that these druggists planned to injure Mr. Good deliberately; but, under any circumstances, the imitative assortment of pills which they furnished him provides an object lesson which does not redound to the ethical honesty of the druggists of Ontario, and particularly of Toronto. We regret at all times having to use the columns of *THE DRUGGIST* for such a purpose as this: but we trust that, in doing our duty by bringing to the attention of the trade a wrong that needs righting, we will help to secure the righting of a wrong which should never have been perpetrated.

The Commercial Druggist.

It is a well-known fact that many capable druggists are a complete failure in a commercial sense. The training which has given them theoretical knowledge will not ensure their success if business instinct and training are lacking. The druggist who expects to be successful in the business part of his profession must be a merchant. He must be able to buy as well as to sell. He must be prepared to adopt the same methods in business which make other merchants around him successful. He must learn, and that quickly, that the public care more for good goods at right prices than they do for being served by a Ph.G., or Ph.M.B., who seeks to impress himself as such. The principles of business are not governed by theory; they are too definite to theorize with. The winner works, or knows how to get others to do it profitably. Some of the features which are necessary for the druggist, at least, are attention, affability, promptitude, exactitude, personal interest, and untiring energy. These are personal, but their application to the demands of the public will ensure a reputation for having stock, keeping it well, and dispensing it to the satisfaction of customers.

The merchant druggist never feels he knows it all. He puts personality in the background and brings business ideas to the fore, changing and adapting the methods and ideas of others at any and all times when they answer his purpose.

He is a thinker as well as a worker, a planner as well as a plodder. He is ever alive to do business when it is to be done, and as thoughtful to arrange for the future as to toil for the present. He studies his customers, their wants, and their peculiarities. He knows when to give credit and when to refuse, doing the latter always so as to dispel the sting that hurts. He ever keeps in mind the knowledge that he is a servant of the public, and that his aptitude to serve their wants, rather than his own wishes, will determine more than anything else how often they will use him to his profit.

American Pharmaceutical Association.

ANNUAL MEETING.

FIRST DAY—WEDNESDAY, AUGUST 12.

The morning was taken up with the council meeting, while the members renewed acquaintanceship and passed the time in pleasant conversation on the rotunda. Up to noon over two hundred delegates had registered at the local secretary's office. The afternoon session opened in the Ladies' Ordinary at 3.45 with Mr. James H. Goode, president, in the chair. Mr. R. W. Williams, president of the Pharmaceutical Association of the Province of Quebec, welcomed the visitors, stating that this was the second time that the association had met on Canadian soil. Mr. W. H. Chapman, president of the Montreal College of Pharmacy, who also welcomed the visitors, and hoped that they would return home benefited and pleased with their visit.

Professor Patch, of Boston, in returning thanks for the association, referred to the historical associations connected with the city of Montreal, and concluded with the remark that while they had brought some *good* people with them he had already found that all the *good* people were not confined to other side of the line. Mr. Charles E. Dohme, vice-president, having taken the chair, the president then delivered his address, which was declared by the members of the association, who applauded the many good points in the speech, to be eminently business-like and practical. After referring to the fact that the limits of the American Pharmaceutical Association were the whole continent of North America, the president went on to speak of the work done by the special committee on weights and measures during the past year. It had co-operated with the American Historical Society and other societies in petitioning Congress to pass a law making the use of the metric system compulsory at an early date in all transactions where weights or measures, or both, were used. They had not succeeded, but that was no cause for discouragement. The wonder was that they had done so well, for they had almost succeeded. They had an immense deal to contend with; it was no easy matter to change a system of weights and measures—a system absolutely without a sys-

tem, but which by education and use had become a part of the people themselves. The metric system would have to be persistently pressed by scientific organizations and more thoroughly taught in all their schools before the people would be ready to accept it in measuring values in the daily transactions of life. He hoped that soon the reproach that Britain and the United States were the only nations not using the metric system would be removed. During the year a new edition of the National Formulary had been issued. The first edition was a popular work, and the second, an improvement on the first, was likely to be more so.

The president, after referring to the aims of the association, said: "We invite membership of a desirable quality. Mutual benefit comes with co-operation, and the discovery is made that we all have much in common. Personal contact develops personal kindness, and both the business and the professional man will find the spirit of antagonism melt away under genial influences."

In the evening a very pleasing reception was held in parlors of the Windsor Hotel, tendered by the Pharmaceutical Association of the Province of Quebec and the Montreal College of Pharmacy. Over one hundred and fifty of the visiting delegates were present, and many of the prominent pharmacists in the city. The guests were received by Mr. W. H. Chapman, president of the Montreal College of Pharmacy, and Mr. R. W. Williams, president of the Pharmaceutical Association of the Province of Quebec.

SECOND DAY.

At half-past ten o'clock the president called the association to order. Owing to the exertions of the previous evening possibly, and the great heat of the previous day, but few of the delegates were in attendance at the opening of the session. After the reading of the minutes by the secretary, it was intimated that the nominating committee had made the following nominations: President, J. E. Morrison, Montreal; first vice-president, Dr. Geo. F. Payne, Atlantic, Georgia; second vice-president, W. A. Frost, St. Paul, Minn.; third vice-president, G. W. Parisien, Perth, Embroy, N.J.; treasurer, S. A. D. Sheppard, Boston; general secretary, Prof. Chas. Caspari, Baltimore; reporter on *Progress of Pharmacy*, Prof. C. Lewis Diehl, Louisville, Ky.; members of council, Chas. Dohme, Baltimore, J. M. Good, St. Louis, J. P. Remington, Philadelphia.

These were approved by the meeting and, after the usual ballot for the position of president, declared unanimously elected. After much discussion, and after the claims of Nashville, Tenn., had been vigorously urged by Mr. J. C. Burge, who read a special invitation from the Chamber of Commerce and other parties, it was finally decided that the next place of meeting should be Lake Minnetonka, Minnesota, and the time the fourth Monday of August, 1897.

(Balance of report next month.)

Protonuclein..

Tablets. (100 3 grain Tablets in bottle) per doz. \$9.00
 " (1000 3 grain Tablets in bottle) . each 6.75
 Powder. (1 oz. bottles) per doz. 9.00
 " (8 oz. in bottle) each 5.50

REED & CARNRICK,
 30 Wellington St. East, TORONTO.

Duncan, Flockhart & Co.'s

Blaud Pill Capsules

Are soft and flexible Never become oxidized
 Never become hard Never vary in strength

These Capsules are put up in 1, 2, and 3-pill sizes, with or without Arsenic, and can be supplied in boxes of 25 or 100 (each). They are prepared by a unique and original process, which entirely overcomes the tendency to **hardening** which is so common in the Blaud Pills.

R. L. GIBSON,
 30 Wellington St. East,
TORONTO.

Toilet Soaps

Messrs. FELS & CO., Philadelphia, Pa., are known as one of the largest Toilet Soap manufacturing establishments in the States, who only make first-class

MILLED SOAPS

Having sold many thousands of dollars worth of their goods in former years, many of our customers know that the quality and style of their soaps cannot be excelled. But from those who have never handled them we solicit a trial order. Prices range from \$3.00 per gross to \$4.00 and over a dozen.

WE CAN GIVE YOU A GOOD MEDIUM-PRICED SOAP THAT WILL PLEASE YOU

If our travellers don't reach you with samples, order a small sample shipment, stating the prices you are willing to pay, and we will send you a nice selection. Repeat orders from our customers also welcome.

A fresh shipment of CHAPIREAU'S Cacheteuses and Cachets, Iso Faultless Pepsin Chips and Fruit Chips to hand.

Canadian Specialty Comp'y

38 Front Street East, TORONTO, ONT.



MEETING OF

Ontario Society of Retail Druggists
 SEPTEMBER 9TH

AT **Toronto...**

CANADA'S GREATEST FAIR
 SEPTEMBER 1ST TO 11TH.

WE trust that a great many of our friends will arrange to attend the meeting of the Association next month, and spend a few days in our city. We hope to be favored with a call early in your visit, and shall be heartily pleased to show you anything that may be of interest to you in our stock or premises.

As usual, we mention on this page a few articles worthy of special attention, hoping for your careful perusal of our notes, and your much-valued orders.



This month we bring under your notice

Canadian Cattle Spice

The best value upon the market, we believe, in the line of Condition Powders. Build up a country trade! Sold in 100 lb. cotton bags, and 10c. packages (about one quart).



"Triangle" Tooth Soap



The 10c. size is the only one upon the market, and the 25c. size is almost twice as large as any other. The cut represents the hinged display tray. The box contains two dozen 10c. size and one dozen 25c. size. Price, \$3.50 per box

Yours faithfully,

ELLIOT & CO.
 5 Front St. E., Toronto

DRUGGISTS

NOW IS THE TIME TO
STOCK UP WITH

DAVIS' FLY FELTS

The Popular
Fly Poison.... **5c.**

THIS PACKAGE CONTAINS FOUR FELTS.

DAVIS'
FLY POISON FELTS

NEVER FAILS TO DESTROY FLIES AND INSECTS.		SUPERSEDES Fly Paper and all other POISONS, Being Convenient and EFFECTIVE
---	---	--

DIRECTIONS.
Place one of the Felts upon a dish or plate; keep wet with water. Use only enough water to soak the Felt. Flies will drink the poisoned water off the Felt and die immediately.
Placez un de ces Felts sur un-dessus d'un plat on assiette; tenez-les humides avec de l'eau. Usez seulement assez d'eau pour temper le Felt. Les mouches boiront l'eau empoisonnee, sortiront du Felt et mourront immediatement.

CAUTION.—Should the liquid be swallowed by accident at once administer in large doses, Lime Water, Flashed Tea, or Iron Bist, followed by an emetic and drinks of Milk or Flour and Water.

PRICE 5 CENTS.

MANUFACTURED BY
POWELL & DAVIS CO., CHATHAM, ONT.

The Reliable
Fly Poison **5c.**

SPECIAL PRICE :

Three Box Lots, - - - \$6.75
Single Cases, - - - 2.50

ORDER THROUGH WHOLESALE
DRUG AND PATENT MEDICINE
DEALERS.

Manufactured by

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Chatham, Ontario

LIVE DRUGGISTS

**KEEP
ON
HAND**

Dr. Campbell's Safe Arsenic Complexion Wafers...

AND

FOULD'S MEDICATED ARSENIC COMPLEXION SOAP

**THE ONLY REAL BEAUTIFIER OF THE
COMPLEXION, SKIN, AND FORM**

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214 Sixth Ave., NEW YORK.

The LYMAN BROS. & CO.

CANADIAN AGENTS

71 Front St. E., Toronto, Ont.

"We believe cutting of prices detrimental
to our interests."

Druggists

Who will sell Manley's Celery Nerve Compound and Indian Woman's Balm at the regular prices are authorized to guarantee the preparation to give satisfaction or refund the money and reclaim same by addressing

The Balm Medicine Co., Ltd.
71 Victoria St., TORONTO

The Stearns Bicycle Is known throughout cycling as a light, staunch, stylish, speedy mount. There's a best in everything; the '96 Stearns is a veritable edition de luxe among bicycles. Finished in black or orange.

Stearns riders are satisfied riders, and always proud as kings of their mounts. Your address will insure receipt of our handsome new catalogue when issued.

"The Yellow Fellow"

AMERICAN RATTAN CO., TORONTO, ONT.
CANADIAN SELLING AGENTS

Pharmacy in England.

Annual Meeting of Society of Chemical Industry—Chemists' Shops, New and Old. Sir James Sawyer on Borax Soap. Eucaine, the Cocaine Rival. Impure Cream of Tartar and the B.P. Test. New Duty on Cocoa Butter.

(From Our Own Correspondent.)

The annual meeting of the Society of Chemical Industry has just been held in London under the presidency of Mr. Thos. Tyrer, F.I.C., F.C.S. The general meeting only occupied a morning's work, which included Mr. Tyrer's address, election of officers for the ensuing year, and presentation of the society's medal to Mr. John Glover, the inventor of the "Glover" tower. Luncheon followed at Cannon Street Hotel, and then the members and friends divided into various parties, in order to visit the Tower Bridge, several breweries, and a refrigerating company's machinery. In the evening Sir Walter Wilkin, Lord Mayor of London, held a reception at the Mansion House, which was attended by some four hundred guests. Further excursions were arranged for succeeding days and the proceedings concluded by a dinner and smoking concert at the Hotel Cecil. The arrangements throughout were very satisfactory, and the committee were heartily congratulated on their success. Early in the year Mr. Tyrer may be said to have started collecting the material for his address when he made his visit to the United States and Canada, because one of the avowed objects of his journey was a comparative examination on the spot of the technical education question and to ascertain in what manner practical manufacturing chemists are trained in the new world. With the German system he was well acquainted, and he himself is a good specimen of how the best English chemical manufacturers are produced. Born in 1842, he was educated at the Grammar School at Sidsley, in Staffordshire, and at seventeen came to London and attended the course at the Royal School of Mines, and Professor Hofmann's lectures at the Royal College of Science. He then went to the laboratory of Messrs. May & Baker, at Battersea, and for many years was a director of that concern, until 1891, when he acquired the Stirling chemical works at Stratford, London E., and commenced business on his own account. He was treasurer for many years of the Society of Chemical Industry, and has been on the council of the Chemical Society, and was formerly chairman of the chemical section of the London Chamber of Commerce. He has any amount of energy, a deliberate and somewhat diffusive style of speaking, wide chemical knowledge, and keen business instincts. It was during his term of office in the chemical trades section of the London Chamber of Commerce that the negotiations were concluded with the Board of Inland Revenue whereby English tinctures were allowed drawback according to the amount of alcohol present when exported abroad.

He has always taken a deep interest in the subject, although, probably, he has never exported a gallon of tinctures, as he is not a wholesale druggist. Still he has wisely foreseen that this step on the part of a great State department is possibly only the forerunner of further concessions as to the use of free alcohol in chemical manufactures generally.

"I am often told by the public," said a chemist to me the other day, "that chemists' shops are not half so pleasant to enter into now-a-days as they used to be, and that our pharmacies are not so interesting as they are on the continent." I thought that there was some truth in the observation, as in my early days it was a practice to gently spray some scent round the establishment two or three times a day, and customers entering used to remark on the pleasant perfume, which frequently led to sales of both perfume and odorators—oratomizers as they are dubbed in the States. Then there is a lamentable absence of floral and foliar decoration that serves to relieve the stereotyped appearance of a pharmacy, and this is certainly better managed abroad. The modern store principle of doing business is probably accountable for the deterioration, as every inch of space is wanted for glaring displays, in order to delude the public as to the vast quantity of stock contained in the—dummies!

Sir James Sawyer, M.D., F.R.C.P., is one of those practical therapeutists that are ever seeking after new methods for the exhibition of old remedies. Not many years ago, he was not satisfied with the old-fashioned chillie paste and tincture of capsicum, but advocated an ethereal tincture of capsicum and a liniment composed of ammonia, turpentine, linseed oil, and the ethereal tincture. Incidentally, he omitted to mention how the combination in the latter instance was to form an elegant preparation, but most druggists appear to have solved the problem by the simple plan of omitting the ammonia. In this way a clear preparation is obtained, and there is quite enough rubefacient action for any ordinary skin. Now Sir James is appearing in the pages of the *Lancet* as an advocate that chemists should undertake the preparation of medicated soaps. It appears that in certain skin diseases a ten per cent. borax soap is very useful, and it would be advantageous to physician, patient, and pharmacist, so Sir James argues, if the chemist would undertake this little matter, as then varying proportions might be prescribed, or certain other additions. The *Chemist and Druggist* offers a very hasty and badly-conceived *non possumus* to this suggestion. It seems to me that, if properly undertaken, there is no difficulty in the matter whatever, provided that the demand is sufficient to pay for the outlay. There would be no great difficulty in obtaining a small machine capable of incorporating the medicine with the soap basis and milling the same. Of course, it could not be satisfactorily done whilst the patient

waited, but a creditable article could be turned out after a few hours. But there is another suggestion that might be made to Sir James Sawyer. Why not prescribe these in the form of a liquid soap? There would be no difficulty then in turning out a liquid preparation containing the soap basis, borax, etc., dissolved in water, in practically a few minutes. It always seems to me a pity to receive suggestions from physicians, which are openly made in order to benefit pharmacists, with a cold shoulder or thinly veiled sarcasm. This is hardly the way to encourage better relations.

Eucaine, the new local anæsthetic that was announced as likely to drive cocaine out of the market, has not made much headway in England as yet, but the article by Mr. Brudenell Carter, the experienced ophthalmic surgeon, will doubtless attract considerable attention. Mr. Carter performed the necessary operation for cataract removal and the only anæsthetic employed was a five per cent. solution of eucaine. This was dropped on the eyeball every few minutes, and the only feeling expressed during the operation by the patient was that something seemed to be moving over the eye, but it was not in the least degree painful. Eucaine is a synthetic preparation, and produced at about two-thirds the cost of cocaine, whilst its greatest advantage, according to the evidence so far, is that toxic effects are not produced even when as much as thirty grains have been injected in solution.

Mr. A. H. Allen, the active public analyst for Sheffield, and author of "Commercial Organic Analysis," has drawn attention to sophisticated cream of tartar, and advocates the direct titration method as superior to the ignition and then titration of the B.P. test for purity. The matter has been under consideration of the B.P. Pharmaceutical Committee, and there is very little reason to doubt that direct titration of the dried salt will be suggested, with appropriate tests for detecting the presence of calcium tartrate or acid potassium sulphate, which sometimes occur as the result of faulty methods of preparation, and whose presence materially vitiates the advantage of direct titration.

Mainly through the influence of Sir Howard Vincent, who is always keenly alive to some of the anomalies under which free trade has to be carried on in Britain, the Chancellor of the Exchequer has added cocoa-butter to the very select and limited number of dutiable goods. The real object of this move was that some of the German and Dutch cocoa products are bounty fed, and therefore obtained an unfair advantage when introduced into England. It will make very little difference to the drug trade, although it is the basis of nearly all suppositories, but its principal use for some years has been in confectionery and special toilet soaps of the superfatted character. Most of the foreign cocoa butter will not compare in odor, appearance, and purity with that emanating from Fry's, Cadbury's,

and other well-known cocoa houses in England.

All the journals of pharmacy in England have announced the visit to England of Mr. W. J. Dyas, editor and proprietor of *THE CANADIAN DRUGGIST*, and the *Chemist and Druggist* appears to have done its best to extract Mr. Dyas' views on the subject of Canada's trade relations with England. Several of the principal daily papers have recently taken a very active interest in the question of a tariff that would establish a preference to colonial produce, provided that some scheme of reciprocity could be established. This is a profound problem, worthy of the energies of our best statesmen, and would go further to consolidate the Empire than anything else. Mr. Dyas seems to have made good use of his time in England, and carried back with him the best wishes of his English conferees, not only for the continued success of his journal, but also in his efforts in uniting the members of the craft throughout the Dominion and his active opposition to the cut-rate fraternity.

The Testing of Disinfectants.

There are a number of disinfectants on the market of more or less value, and it is the object of this paper to give the dealer and consumer some method of determining the relative value of these various products. Infections are caused by various kinds of bacteria, but all these bacteria do not thrive under the same conditions. A substance may form an excellent medium for the growth of one kind of bacteria, while it may be positively fatal to other kinds. So, in determining the value of a disinfectant, it is necessary to determine its effect upon specific forms of bacteria.

Although the chemical constitution and strength of a disinfectant can be determined by chemical means, it is necessary to resort to a bacteriological examination in order to be certain of its value as a disinfectant. A bacteriological examination may be conducted as follows:

A series of test tubes are filled with solutions of disinfectants of different degrees of strength, and in each of them is placed a silk thread impregnated with some specific form of bacteria (e.g., bacterium coli). At the end of definite intervals of time the threads are removed, washed with sterilized water, and placed in a culture medium of gelatine or agar. The culture tubes, containing the culture medium, are then placed in a sterilized chamber until the bacteria shall have had time to develop. If the solutions are strong enough, and if sufficient time be allowed for the action of the disinfectants, no colonies of bacteria will be found; but if, on the other hand, the solutions were too weak, or if the time for the action of the disinfectant be too short, numerous colonies of bacteria will be found. In every case it will be found that in a certain strength of solution the bacteria will thrive, while in a somewhat

stronger solution they will be killed. Thus, a solution of one part of thymol in three thousand of water will prevent alcoholic fermentation, but if the solution be diluted to one in thirty-five hundred the fermentation will proceed. A solution of one part salicylic acid in one thousand parts of water will prevent fermentation, but if diluted to one in twelve hundred fermentation will take place. A solution of one part thymol in three thousand of water is the weakest solution of that antiseptic that will prevent fermentation, while a solution of one part of salicylic acid in one thousand of water is the equivalent strength of that solution for hindering fermentation.

Therefore, it may be said that thymol has three times the disinfecting power of salicylic acid. In a similar way all antiseptics may be compared. The following table gives the minimum strength of some well-known antiseptics that will prevent alcoholic fermentation:

Antiseptic.	Weakest concentration to prevent fermentation.
Corrosive sublimate.....	1:20000
Potassium permanganate.....	1:10000
Copper sulphate (blue vitriol).....	1:4000
Bromin.....	1:3000
Thymol.....	1:3000
Benzoic acid.....	1:2000
Salicylic acid.....	1:1000
Quinine.....	1:400
Carbolic acid.....	1:200
Sulphuric acid.....	1:100
Resorcin.....	1:100
Pyrogallol.....	1:50
Boric acid.....	1:25
Chloral hydrate.....	1:25

—*Foreign and Colonial Importer.*

Mannocitin.

A rust-preventing compound, called mannocitin, of German invention, is attracting much attention. The compound is composed of greases and volatile oils, and is applied in a thin coating, and has the advantage of spreading so that a little covers a large surface. One gallon will protect the surface of over eleven hundred square feet. The volatile oils evaporate after application, and leave a thin film tightly adhering to the metal, forming a coating which affords perfect and permanent protection, and also prevents corrosion and rust.

It is claimed that this mannocitin is absolutely neutral, containing no acid. One coat of the preparation, and it is easily applied with a rag, will protect the metal for years, whether it be the finest and smallest tools or the largest machinery. It forms a protection against salt air, dampness, fresh or salt water, perspiration, and the fumes of ammonia and hydrochloric acid.

It does not rub off by handling or by the contact of wrapping paper or dust; it is transparent, so it does not influence color, and as its melting point is high it will be of use on boilers.

It may be removed by an application of benzine or turpentine so that scratching is avoided, making it useful as a protective coat for engravers' plates when not

in use. It may be bought in any quantities and seems to be a valuable invention. —*Scientific American.*

Acknowledgments.

The editor tenders his sincere thanks to the editor of the *British and Colonial Druggist* and the *Chemist and Druggist* of London, for courtesies extended on his recent visit to England; also to the Society of Chemical Industry, for invitation and tickets to the annual dinner, excursion, etc., which, unfortunately, previous engagements prevented his participating in.

To Increase Sales.

There is a great complaint among retail druggists on account of small individual sales. One druggist says on a day's sales of thirty-five dollars only one sale of a dollar, and the majority were about ten cents. The fault is largely owing to the improper education of clerks as salesmen when a customer comes in and asks for a patent medicine put up in three sizes, 25c., 50c., and \$1. The majority ask if they want the 25c. size, instead of trying the \$1 package (which is usually cheaper in proportion); and if not \$1 size, then 50c., leaving the 25c. size as a last resort. In many cases only a 25c. package can be sold, but anyone trying this plan will be surprised how many times the larger sale can be made. This also applies to drugs as well. If asked for Rochelle salts, for instance, many times a quarter pound or ten cents worth can be sold, when if the customer was asked if he wanted five cents worth the invariable answer will be yes. One druggist, on buying a business, said he found various goods put up in two and three cent packets. These he bundled out, and instructed his clerks they were not to sell less than five cents worth of anything, and the result was most satisfactory. A little education along this line will make many a business more profitable.

Metherell & Co., druggists, Vancouver, B.C., have closed their business.

H. R. Carter, of Picton, who was formerly with Messrs. C. B. Allison & Co., at that place, has purchased the drug business of Mr. J. H. Landreth, Berlin, Ont.

W. G. Smith, druggist, Guelph, Ont., died suddenly from apoplexy on August 12th. Deceased was for some years mayor of the city, and was highly esteemed by his fellow citizens.

PARADIPHENOL.—Synonym of hydroquinon.

Camphor and creasote, like camphor and carbolic acid, are incompatible.

Oil of turpentine is recommended for the removal of the odor of iodoform.

Artificial plumbago can be made by heating carbon in an electric furnace.

A Wonderful Record

Out of the many millions of

FLY PADS

Sold by us no pad has ever been returned which, upon being properly tested, would not kill flies in very large quantities.

TRUE, we have a few complaints yearly, but failure may always be traced to one of the following reasons, viz.:

EITHER the plates have been placed in a window where there is a strong draft, and consequently no flies (it being well known that they will not stay in a draft),

OR, they have been placed in a dark part of the room where there are very few flies to be killed,

OR, the pads have been flooded with water so that the flies cannot light on them.

If our retail drug friends will see that the above mistakes are avoided,

We Guarantee FLY PADS to Give Satisfaction in Every case

**Avoid unsatisfactory
Imitations**



**WILSON'S
FLY PADS**

Are the original
and only genuine

ARCHDALE WILSON & CO., SOLE MANUFACTURERS **Hamilton, Ont.**



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A CREAM PITCHER

With 36 Bars regular Tutti Frutti, being the same as one box.

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 If Not, Why Not?

ODOROMA**The Perfect Tooth Powder**

Has captured the market wherever it has been introduced. If it is a new thing to you, here are a few reasons why you should handle it:

It is cleansing, antiseptic, fragrant, refreshing.

It is perfectly harmless.

It has been analyzed by the most expert chemists, who all report in the most favorable terms.

It sells at a glance in the first instance, and on its reputation thereafter.

It yields more profit to the retailer, and to the consumer a greater quantity of the best quality, than any other tooth powder in the world.

Order from your wholesale house

AROMA CHEMICAL CO., - TORONTO

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(Near Union Station.)

Druggists' Specialties,
 Surgical Dressings,
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 Trusses and Suspensories,
 Medical Batteries,
 Lints and Cottons,
 Abdominal Belts,
 Instruments of all kinds.

Send for quarterly quotations.

PRICE LIST

Common Sense Exterminator
FOR ROACHES

25c. each, \$1.75 doz.; 50c. each, \$3.75 doz.; \$1.00 each, \$8.00 doz.

Common Sense Exterminator
FOR RATS AND MICE:

15c. each, \$1.00 doz.; 25c. each, \$1.75 doz.; 50c. each, \$3.50 doz.; \$1.00 each, \$8.00 doz.

Only infallible remedy known. No smell from Dead Vermin. **Not Poisonous** to man or beast. Once used always recommended. Sold by Wholesalers at

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Common Sense Mfg. Co.,

523 King Street West, Toronto,
 Manufacturers of Common Sense Stove Polish,
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Seasonable Goods

DAVIS' FLY FELTS

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WILSON'S FLY PADS

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Sponges!

Direct from the Fisheries

Sponges!

In original packages, unbleached;
 or in cases, bleached.

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Bath Honeycomb, Forms and Half Forms, Extra Fine Silk Toilet, Fine Silk Pottery, Zinocha Pottery in every size and grade.

NASSAU and FLORIDA

Fine Sheepwool, Velvet, Grass, Reef, Surgical, Slate, Yellow, in every size and grade.

Exceptional advantages in buying enable us to sell cheaper than any other house in the trade.

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which we are offering at low prices to the trade.

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Have your mail sent care of us and it will be looked after.

**New Goods**

Roger & Gullet's Marachale Rose
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F.B.&F. Phenolated Essence

Pepsine

Hoff's Malt Extract

Mellin's Food

Hunt's Catarrh Snuff

WHITE'S BOSTON MODEL

Water Pad Trusses**Fresh Garlic**

Trade Notes.

G. A. Fraser has opened a new drug store at Rossland, B.C.

W. A. Dymond, Dartmouth, N.S., has sold his drug business to D. P. Mott.

John O. Wood, druggist, Toronto, Ont., died August 7th from Bright's disease.

G. K. Thompson, of Annapolis and Yarmouth, N.S., has taken Allen Jost into partnership.

J. L. Beaudry has opened a drug store at the corner of City Hall avenue and St. Catharines street, Montreal.

G. W. W. Davidson, druggist, of Hamilton, Ont., was drowned in the Grand River, at Brantford, while bathing, August 3rd.

Hargreaves Bros., druggists, formerly on the corner of Queen street west and Simcoe streets, Toronto, have removed to 162 Queen street west.

R. D. Scott, Sarnia, has sold his drug business to Albert Johnson, for many years with S. Fraleigh, St. Marys. Mr. Scott is going to study medicine at Ann Arbor, Mich.

A. W. Bleasdel & Co. intend closing their drug business at Macleod, N.W.T., and opening at Fort Steele, East Kootenay, B.C., where they have purchased and intend erecting a building, which they hope to have completed by October 1st.

Sir Leonard Tilley, K.C.B., whose death occurred June 26, was at one time a prominent druggist of St. John, N.B., having been apprenticed to Mr. William D. Smith, of that city, in 1830, and afterwards carried on a very successful business on his own account.

The annual meeting of the Wholesale Drug and Proprietary Medicine Association will be held at the Windsor Hotel, Montreal, on Thursday, August 20th. A number of western members are going to make a party to go down by boat from Toronto on the 18th.

The annual meeting of the British Medical Association for 1897 will be held in Montreal. Dr. Thomas G. Roddick, M.P., of that city, has been elected president for the ensuing year, the first time in the history of the association when any member outside of the British Isles has been elected to that office.

Dr. F. E. Stewart, Ph.G., 106 Charlotte avenue, Detroit, Mich., has been chosen chairman of the section on materia medica, pharmacy, and therapeutics of the American Medical Association. The doctor is eminently fitted for this important position, his thorough knowledge of the subjects in that department being practical as well as theoretical.

During a heavy wind and rain storm of Tuesday, 28th inst., in Brantford, a large plate glass window, 6 feet by 10, of B.

Batchelor's drug store, in the east ward, was blown in. The force of the storm was such that not a piece of glass one and a half feet square was left whole. Had the storm not soon abated the store would have been flooded. As it soon stopped, no particular damage was done to the stock.

Nova Scotia Notes.

During the past week many of the druggists throughout the province visited Halifax, to take part in the carnival festivities. Mr. R. C. Fuller, wife and daughter, of Amherst, Mr. W. F. Odell, of Truro, and Dr. A. D. MacGillvary, of Sydney, were among the visitors. The drug fraternity gave two enthusiastic yachtsmen to the regatta, Mr. Augustus Cann, of the firm of C. C. Richards & Co., of Yarmouth, whose yacht, *Sabot*, made a good showing in the race, and Mr. Gordon MacGillvary, of Sydney, who personally sailed the *Duchess* all the distance from Sydney, C.B., to Halifax in order to enter the competition.

The Nova Scotia Pharmaceutical Society sends three delegates from its ranks to the meeting of the American Pharmaceutical Association, in Montreal, beginning August 12th. The gentlemen named are Mr. Frank C. Simson, Mr. A. H. Buckley, and Mr. Walter Irwin. Some other members of the N.S. Society have signified their intention of being present. A large meeting is expected and an enjoyable time anticipated.

The annual meeting of the N.S. Society took place on June 17th, and Mr. Frank C. Simson was re-elected president. The officers of the association are now as follows: Frank C. Simson, president; A. H. Buckley, vice-president; L. J. Mylius, treasurer; A. F. Buckley, secretary; W. A. Dymond, registrar.

Reports show the society to be in a flourishing condition.

Manitoba Notes.

Dr. R. P. Crookshank, of Rapid City, spent two weeks in and about Winnipeg, enjoying a well deserved holiday. The doctor is a first class trap shooter, and along with a few members of our city gun clubs represented Manitoba in the annual shoot of the Dakota Clubs held at Neche last month.

Mr. J. K. Patton, of Minnedosa, was in Winnipeg last week, attending the annual communication of the Masonic Grand Lodge.

Mr. A. P. Jeffery, representing The Martin, Bole & Wynne Company, of Winnipeg, left last week on a business trip to the Pacific Coast.

Mr. G. W. McLaren, of Morden, was in Winnipeg a few days ago on business.

Dr. L. A. Knight has opened up a drug business at Nunga, Manitoba.

Mr. F. E. Arkell, for some years in business at Wawanesa, has gone to Calgary to take charge of a drug business at that point.

Mr. A. E. Waldon, druggist, of Calgary, passed through Winnipeg last week on his way to the East.

Mr. W. J. Edmonson, of Edmonson, Bates & Co., Toronto, has been touring the province recently in the interests of his firm, and has met with good success.

Mr. M. LaF. Thompson, of Pilot Mound, left last week for Eastern Canada, on a pleasure trip.

Dr. Macklin, formerly of Portage la Prairie, has opened up a drug business in connection with his practice at Roland, Man.

Messrs. Creaux Bros., of Qu'Appelle, have sold their business at that point to Messrs. J. A. Unsworth & Co.

Messrs. Arthur Young & Co., of Neepawa, have disposed of their branch store at Arden, Man., to Mr. N. VanBlaricon, who will conduct the business under the name of The Arden Drug Store.

Ontario College of Pharmacy.

SEMI-ANNUAL MEETING.

The regular semi-annual meeting of the council of the Ontario College of Pharmacy was held on Tuesday, August 4th, and three succeeding days, in the college building, Gerrard street, Toronto, under the presidency of Mr. J. H. Mackenzie. There was a full attendance of members, and the business was disposed of promptly. No matters of special moment or unusual importance came up for consideration, but the regular accumulation of routine work gave the committees plenty to keep them busy. The condition of the college, educationally and financially, was shown to be remarkably satisfactory; the students have passed the examination with special credit in spite of the natural drawback which the unfortunate illness of the dean might have occasioned, and the finances had improved over \$6,000 in the past twelve months. These very gratifying conditions are but a continuance of what has been reported at several sessions in the past, and the council is to be again congratulated.

That other very important branch of the council work, the law-enforcement department, was shown to be much alive by the report of Chairman Karn, of the Infringement Committee, and the trade throughout the province will be gratified to know that their interests are being so energetically protected.

The council was called to order at 2.30 o'clock on Tuesday afternoon, with the following members present: President J. H. Mackenzie, Toronto, in the chair; Messrs. Harry Days, Lucknow; C. D. Daniel, Toronto; W. A. Karn, Woodstock; D. H. McLaren, Barrie; John McKee, Peterboro; J. F. Roberts, Parkhill; R. D. Scott, Sarnia; Simon Snyder, Waterloo; G. W. Spockman, Hamilton; A. Turner, Orangeville; H. Waters, Ottawa. Mr. James H. Dickey, of Trenton, was not present at the first day's session, but arrived on Wednesday.

After the reading and adoption of the minutes of last meeting, a large number of communications were read by the registrar. The majority of these had reference to the matter of fees, and none of them contained matter of interest to any but the individual correspondent. In most cases they were referred to the registrar-treasurer to be dealt with in accordance with the action ordered by the council in similar instances. The others were referred to the various committees under whose jurisdiction they naturally fell.

One communication, however, received some immediate consideration by the council. This was a letter requesting that delegates be sent by the council to attend the forty-fourth annual convention of the American Pharmaceutical Association, which will open in Montreal on the 12th inst. It was suggested that President Mackenzie and Mr. H. Watters be appointed. Mr. Mackenzie doubted the utility of sending representatives at all. The association, he said, according to the opinion expressed by a former president, existed rather for educational purposes than for the advancement of trade interests in the direction of legislation. Mr. Karn and other members, however, stated that the retail druggists in the United States were now beginning to take an increased interest in the association, and that, in consequence of this, there had been a large addition to the membership. It would be showing scant courtesy to the association, too, if when they held their convention in a Canadian city they were ignored by the Ontario College. He urged very strongly that representatives be sent and that the president of the council be one of them.

The matter was finally left over for future consideration.

The registrar-treasurer, Mr. Isaac T. Lewis, then presented his report for the past six months.

The report was in every respect a most encouraging one. It stated that since the first of February of 1896 the following medical practitioners had taken out registration: S. B. Beans, Elmwood; J. G. M. Sloan, Shallow Lake; F. C. Delahey, Cobden; J. L. Smith, Parnoch; R. W. Shaw, Springfield; and certificates were being awaited from J. A. Meldrum, Belmont, and A. E. Hanna, Perth. The number of applications of apprentices for registration had been 78, a few of whom were under abeyance for the council to deal with. The amounts for renewals received since the 1st of February, 1896, were as follows: 1889, \$4; 1890, \$8; 1891, \$8; 1892, \$12; 1893, \$18; 1894, \$82; 1895, \$156; 1896, \$2,826; total, \$3,114, less rebates on 1895 and 1896, \$1,302, making the net amount \$1,812.

The following detailed statement of receipts and disbursements for the last six months, ending 1st August, was given:

RECEIPTS.

To cash balance..... \$ 47 73
Balance in bank..... 6,526 18

Balance in Bank of Commerce savings department.....	1,015 02
Renewal fees (less rebates).....	\$7,588 93
Apprentices' registration fees.....	1,804 00
Registration fees, M.D.'s.....	78 00
Poison books.....	26 00
License sales books.....	14 13
Diplomas.....	6 70
Matriculation fees, junior courses.....	8 30
Teaching department.....	22 00
Examination account.....	212 00
Microscopic supplies.....	856 46
Total.....	21 64
Total.....	\$10,638 22

DISBURSEMENTS.

By Ontario College of Pharmacy, for small supplies.....	\$ 265 06
Addition to college building.....	42 52
Rental of lane.....	30 00
Interest account.....	288 72
Council meeting.....	362 65
Library fund.....	12 00
Auditors.....	10 00
Salary account.....	3,977 15
Deposit fees.....	570 00
Postage account.....	54 23
Petty expenses.....	8 55
Coal account.....	147 72
Law account.....	66 00
Water account.....	6 49
Gas account.....	43 66
Apparatus and appliances.....	209 01
Supplies (pharmacy department).....	313 09
Laboratory apparatus.....	147 90
The Synod, paid 30th May.....	1,000 00
Infringement account.....	93 67
By balances.....	2,989 80
Total.....	\$10,638 22

The report was referred to the Committee on Finance.

The report of the auditors stated that the books and vouchers of the college had been examined, and the accounts of the registrar-treasurer found correct. The following statement of assets and liabilities was attached:

ASSETS.

College building.....	\$33,656 82
Furniture, apparatus, etc.....	11,100 00
College lot.....	5,000 00
Outstanding fees.....	5,000 00
Supplies estimated to date.....	320 00
Poison and liquor books.....	160 00
Cash balance.....	49 57
Bank balance.....	391 26
Bank of Commerce, savings department.....	2,548 97
Total.....	\$53,726 62

LIABILITIES.

Mortgage, the synod.....	\$11,000 00
Interest to date.....	100 84
Salary account.....	125 00
Library fund.....	66 19
Accounts, sundry.....	486 25
Examiners, May, 1896.....	415 06
To balance.....	41,533 28
Total.....	\$53,726 62

This report was also sent to the Committee on Finance for consideration.

The first day's session was brought to a conclusion by the adoption of the following resolution:

Moved by G. W. Spockman, seconded by Mr. Turner, "That the Committee on By-laws and Legislation be asked to present a report on the advisability of this council petitioning the Minister of Customs for a reduction on the import duty on 65 per cent. O.P. alcohol, to equal excise duty."

The council reassembled on Wednesday morning at 10.30 o'clock, when the following resolution was moved by Mr. A. Turner, seconded by Mr. G. W. Spackman, and carried: "That the president of this Council Committee and H. Watters be appointed delegates to attend the annual meeting of the American Pharmaceutical Association in Montreal on August 12th."

After the reading of a number of communications which did not possess any general interest, the council adjourned for the purpose of allowing the committees to prepare their reports.

At the afternoon session, which began at two o'clock, the report of the Committee on By-laws and Legislation was submitted by Mr. Henry Watters, and was adopted as read. It dealt almost entirely with individual applications for rebate in fees, for registration by apprentices, and other matters containing no general interest to the trade. In reference to a recommendation from the committee on District No. 10, the report stated: "Whilst your committee is in hearty sympathy with the resolution of District No. 10 in recommending application to the Legislature to amend the Act regulating the sale of Paris green and sulphate of copper, we feel that, owing to the unfavorable results of recent application, it is inadvisable to make any further application at present."

Report No. 1 of the Executive and Finance Committees, which was then read, recommended the payment of the following accounts: The Toronto *World*, \$5.40; Jos. Iredale, \$7.20; Rice Lewis & Son, \$16.25; *The Monetary Times*, \$15; Rowsell & Hutchison, \$5.55; the Bain Book Company, \$1.70; Joseph Doust, \$11.25; Edgar & Malone, \$275; W. A. Karn (infringement expenses), \$23.50; total, \$360.85. "It is with much pleasure," the report stated, "that your Finance Committee call your attention to the very creditable advancement the college has made financially during the past year. In August, 1895, there was: Cash (and in savings bank), \$1,315.20; mortgage indebtedness, \$13,000; balance assets, \$38,242.24. In August of 1896 there is: Cash (and in saving bank), \$2,940.23; mortgage indebtedness, \$11,000; balance assets, \$41,533.28. Comparing these figures, it will be seen that the college has in the past year made a net gain of \$6,916.07." The report recommended that the salary of the janitor, Mr. Young, be advanced to the sum of \$600 per annum.

The report was adopted without discussion, and the council adjourned until 11 o'clock on Thursday morning.

Thursday morning's session was taken up chiefly with the consideration of the Education Committee's report. A lengthy discussion ensued over the representation by President Mackenzie that the four gold medals offered for competition in the different departments of work might be graded, so that, instead of going to one

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is the Gum the others are selling.

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Our Carving Set Premium Packages are having a great sale.

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For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

Has won 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at \$1.00. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.



CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and \$1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton and London, Ont., and Winnipeg, Man.

ELLIOT'S "B" PARCHMENT PAPER

is one of the articles to be considered in the practice of "elegant pharmacy," as it furnishes the finest transparent wrappers for bottles, packages, etc. It must be seen and tried to be appreciated. We send samples.

ELLIOT'S PARCHMENT POWDER PAPERS

are the best for hygroscopic powders and all other powders. The following prices show they are the cheapest:— Put up in Neat Boxes of 500 Sheets.

No.	Rm.	No.	Rm.
22 For Magnesia and general use, White, 6 x 8	\$0 65	31 Large Seidlitz, Blue, 6 x 6	\$0.50
28 Regular Seidlitz, White, 4 1/2 x 5 1/4	40	40 Powder Papers, White, 2 3/4 x 4 1/2	25
29 Regular " Blue, 4 1/2 x 5 1/4	40	41 Powder " " 3 x 4 1/2	20
30 Large " White, 6 x 6	50	42 Powder " " 2 3/4 x 3 1/4	25
		43 Powder " " 3 3/4 x 4 1/2	25

SEND FOR SAMPLES. Elliot's Parchments are for sale by the leading jobbers. We also make heavy Parchment for Sticky Fly Paper, and Druggists' Pure Tin Foil.

A. G. ELLIOT & CO.,

PHILADELPHIA.

If you want to sell the best, handle

MAJORS CEMENT

CHEAP, QUICK, AND CERTAIN.

Repairs China, Glassware, Meerscham, Bric-a-Brac, to put on cloth, corn and bunion plasters; to hold a bandage on a wound or sore finger. 15c., 25c.

Major's Rubber Cement, 2-oz. bottle, or in collapsible tubes, for repairing rubber boots and shoes, bicycle tires, rubber garments, silk umbrellas, etc. 15c.

Major's Leather Cement repairs boots and shoes, garments and umbrellas of all kinds of material except rubber, applied same as on leather goods. 15c.

Major's Liquid Glue repairs furniture, books. 10c.

•••

KERRY, WATSON & CO.,

351 St. Paul Street,

Sole agents for the Dominion. MONTREAL, Canada

Wampole's

BEEF, WINE, AND IRON.

In Pint Bottles.....\$5 00 per doz.

Winchester (1/2 Imp. Gal.)..... 2 00 each.

Imp. Gallon, in 5 gal. lots, and over 3 50 per gal.

With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

1/4 Gross lots, and over.....\$60 00 per gross.

(Packed in One-Dozen Cases.)

We use a Pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

We invite comparison with other manufacturers, and will cheerfully furnish samples for that purpose.

Your early orders and enquiries solicited through Wholesale Jobbers or direct from us.

Henry K. Wampole & Co.,

MANUFACTURING PHARMACISTS,

Philadelphia, Pa.

Canadian Branch:

36 and 38 Lombard Street, TORONTO.

BRUSHES

Hair and Cloth

Tooth and Nail

TEN CASES NEW GOODS JUST IN
WRITE US FOR SAMPLES AND PRICES

MEAKINS & COMPANY

Brush Manufacturers

313 St. Paul Street, - Montreal

Sovereign . . Lime Fruit Juice

Is the Strongest, Purest, and of Finest Flavor

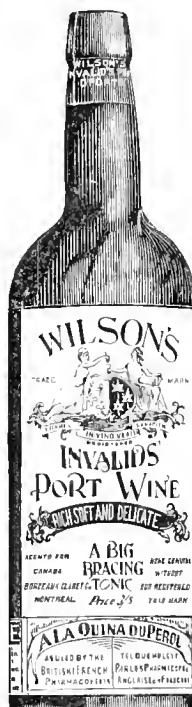
We are the largest refiners of LIME JUICE
in America, and solicit enquiries.

For Sale in Barrels, Demijohns, and twenty-four ounce Bottle
by wholesale in

TORONTO, HAMILTON, KINGSTON, AND WINNIPEG

SIMSON BROS. & CO., Wholesale Druggists

HALIFAX, N.S.



Sick
Men
Smile



after trying the one
great sure-to-help
pleasant, and su-
staining strengthener

Wilson's
Invalids'
Port

The big bracing tonic.

Physicians swear by it—Sick men
recover by it.

For Sale Everywhere.

75c. PER QUART BOTTLE

AGENTS FOR CANADA:

BORDEAUX CLARET CO.

30 Hospital Street, Montreal.

man, as was possible now, and was very often the case, they would be distributed. No action, however, was taken in the matter, but a tacit understanding was arrived at that a conference should be held with the donors of these medals for the purpose of seeing what could be done in this direction. One or two classes in the report of the Committee on Education were sent back to the committee for reconstruction.

The report as finally adopted congratulated the college upon the high standard attained. "The reputation of the college," it stated, "has become continental, and justly so, for, thanks to the untiring efforts of the members of the faculty, the students turned out of our college are able to take positions in any part of the continent, and they are very much sought after by our friends across the lines. The illness of the dean, we were afraid, would be a very serious interference with the work of past sessions, but we were fortunate enough to have the services of Messrs. Murchison and Ashton, who performed the duties with great acceptability. We are pleased to report that the dean is rapidly recovering, and will be able to resume his duties at the beginning of the junior term. Your committee beg to report that a further grant of \$200 be made to the dean, on account of prolonged illness, to assist him in remunerating assistants necessitated during his absence. In the matter of the John Roberts scholarship and medal, your committee recommend that they be awarded to R. A. Gausby, of Guelph, entitled to the same as per examination. With reference to the students who have been successful in passing their examinations, but who have not yet attained the age of twenty-one years, your committee recommend that in advice of their having attained their majority their diplomas be granted them. In view of the fact that the health of Prof. Fotheringham will not permit him to continue the course in microscopy and Dr. J. B. Anderson having consented to perform that duty during the coming session, your committee recommend that the Committee on Executive and Finance set apart a sum of money that will be equal to \$25 for every class of thirty students at may attend the senior courses, to enable Prof. Fotheringham to reimburse his assistant.

To the report was appended the list of students who had passed in the recent examinations, details of which have been already published.

When the council assembled in the afternoon the following supplementary report was presented by the committee on laws and resolutions: "Regarding the desirability of petitioning the Minister of Customs for a reduction in the import duty on 65 O.P. alcohol, your committee would recommend that the president have a petition drawn up and circulated with signatures of the druggists of this province, and that the president, vice-president, H. Watters, and S. Snyder be appointed to present said petition and

urge our claims before the Minister of Customs, and that the registrar-treasurer be instructed to communicate with the registrars of the various provincial associations setting forth the desirability for the petition and requesting their co-operation in the movement." The recommendation of the committee was adopted.

In presenting the report of the Committee on Infringements, Mr. W. A. Kars, the chairman, said that since the last meeting the committee had been pushing its work with vigor and did not purpose resting now. The convictions secured simply stimulated to fresh effort, and it was determined that in those places where through any cause justice had failed the cases should be brought up again, and, if need be, again and again brought up until success should be achieved. The report read:

Your Committee on Infringements beg to report as follows: That the communication of W. Anderson has been considered, and your committee beg to report that, as the college has not received any fine or any information in reference to the case no action be taken in the matter.

Since the last meeting of the council your committee have been pushing their work with the utmost vigor, and have had many cases of a troublesome nature to deal with.

We have had the usual trouble in securing the services of a reliable detective to prosecute, and after many trials and much tribulation we now have the work proceeding in a manner satisfactory to the committee. Your committee beg further to report that the cost of carrying on its work during the past six months has been \$233.67, details of which appear in the financial report, and that the total number of convictions are twelve, as follows: Robert Simpson, Toronto, \$20; J. Corbitt, Brownsville, \$20; H. P. Ostrosser, Brownsville, \$20; A. Gamsby, Folden's Corners, \$20; H. Sealey, Sweburg, \$20; James H. S. McKay, Toledo, \$20; John Simpson & Son, Alexandria, \$20; Charles G. Lindsay, Kars P.O., \$20; William Bruce, North Gower, \$20; George Craig & Son, North Gower, \$20; making in all a total of \$240 in convictions during the last six months, which we are pleased to say is slightly in excess of the expenditure. We would also call the council's attention to the fact that upwards of \$100 in long standing dues has been collected through the efforts of our officers.

We would also refer to the fact that we have failed in getting a conviction in one case in which we should have succeeded, if justice had been properly dispensed. We have also several cases standing that will no doubt result in conviction during the next few days.

We would again refer to the fact that much better work could be done if the members of the trade would render that assistance which is certainly due the committee.

After due consideration of the judgment

recovered by your committee, and after thorough and complete consultation with our solicitor, we would recommend that the Simpson case be pursued still further, so that the various evasions now existing be cleared up.

Your committee are extremely gratified with the success of the case against the big departmental store, which has made it plain and cleared up any doubt that may have existed favoring the contention that an unqualified person could keep open shop.

Your committee ask the consent of the council to pursue the same course in the matter of infringements that we have followed during the past six months.

W. A. KARS, Chairman.

Before the council adjourned for the afternoon Mr. George E. Gibbard was permitted to occupy its attention for several minutes. He drew the attention of the members to the fact that delegates to the convention of the American Pharmaceutical Association, which is to be held in Montreal on the 12th, would pass through the city on the 11th, and he urged that some steps should be taken to give them a welcome and entertain them during the few hours they were in the city. He thought if the council would make a small grant for this purpose it would be increased by private subscriptions.

At the final session of the council on Friday morning the matter of entertaining the members of the American Pharmaceutical Association again came up, but no action resulted from the discussion, it being clear to the council that the college funds could not be used for the purpose suggested.

A motion was passed granting Mr. Isaac T. Lewis, the registrar-treasurer, two weeks' holidays.

Report number two of the Executive and Finance committees was then presented. Accounts amounting to \$92.71 were recommended for payment, and a number of repairs were suggested to the college building. The committee did not think it advisable to take any steps towards forming a museum for materia medica specimens at the present time. Owing to the continued illness of the dean the committee recommended that under these circumstances the special grant for pharmacy, which had not been expended, be allowed to remain to the credit of that department, if used before the February meeting of the council. It was recommended that, in view of the increased attendance at the college, the grant recommended by the Committee on Education in reference to an assistant in microscopy be granted. It was also recommended that the sum of \$150 be granted to the dean to assist in paying the assistants who lectured in his place during his late illness, this said grant being in the same ratio as was given to Dr. Fotheringham during his illness.

The report was carried, and the business of the meeting having been concluded, the council adjourned until February next.

Window Dressing.

Is there any longer a shadow of doubt as to the trade-bringing potentiality of a dressed window? Those who have tried its efficacy as a means of drawing trade are enthusiastic. We consider the store-keeper's window his cheapest advertisement. In his window he can display the goods with or without prices, as he deems best. Is not the dealer's window his sign of cleanliness, thrift, taste, and business enterprise? The window stands there, gazing out upon the particular spot wherever located. It stands there, no matter where its owner may be, continually enticing the public to the spot. Window advertising catches a class of custom that is well worth the baiting. There is also a trade caught by attractive window advertising that never would materialize were it not for the show; just as the huckster creates an appetite that would never have been developed were it not for the polishing of his red-ripe apples.

The style of the window is the first thing to consider. In this connection we may say that it is one of the requisites of a good trade, where there is any sort of intelligent competition, that there be a maximum of unbroken window glass in the store front. If the front is a single one, say twenty-two feet, the best disposition to make of it is to place the door at one side and make one window. By all means let the store front be a light color, even if the paint has to be applied twice a year. It suggests neatness on the inside. A pale cream with gold lining is one of the latest and most tasteful things in colored fronts.

The lettering on the windows is a thing worth attention. The old style of white enameled letters is not bad, but one of the new things is a gold script, a thick letter some half an inch or more deep. The lettering should not interfere with the display.

The custom of keeping stores open late in the evening is still prevalent, and there is no better time for a display if the window and store be well lighted. If your store is situated on a prominent thoroughfare, where a great many persons are likely to pass after sundown, the windows should be well lighted, so that the goods in them may be viewed, and so that the advertising value of your window may go on while your store is closed. As bearing on the matter of lighting, it would be well if the backs and sides of each window were lined with mirrors. Nothing can be more effective or give more light, and at the same time do away with all clumsy draping to hide the wooden backs or partitions. For artificial light, of course, electric lamps are by far the best and safest, but where these cannot be had there are many covered lamps that are very effective.

As a rule, windows are overcrowded, and various classes of goods are indiscriminately mixed, whereby the eye becomes confused and the mind is unable

to grasp any particular object shown. Do not dress too high up, and let any special line or bargain be as near as possible on a level with the eyes of the passer-by. All price tickets and descriptions should be plainly written, with as little ornamentation as possible, and in a color to suit the goods.

The window-dresser must keep in mind the object in view and be guided accordingly. He aims to set forth a fair sample of the goods to be found within. They must be so displayed as to prove an attraction to the people upon the street, most of whom are intent upon going somewhere else. Their attention must be diverted from their original purpose. To do this the goods displayed must be of such a character as will appeal with force to the purchaser at the time. In a word, the window must be dressed with seasonable goods.

Every legitimate method for attracting the attention of those who pass your way must be used. The ways by which you can get the people of your town in sympathy with your methods are numerous. First of all you must be sincere, and try to please. Then keep up with local and current history.

The general success which comes from window-dressing is enough to warrant a merchant in going to any expense necessary to make his display effective. The display should be made first-class in every particular. Nothing should be left half done, and nothing should be left undone. Even if your window is expensive it will pay for itself twice over if it is properly made.—*Krystone*.

Building Up a Business.

By JOHN C. GRAHAM, New York.

The man who aspires to establish a permanent paying business will take great care in laying his foundations. No matter what particular line he may be in, he may have the very laudable ambition to lead in his trade, to make his name pre-eminent among his fellows, and to have his goods mentioned as the best of their class. The grandest advertisement ever penned is poor compared to a reputation for keeping honest goods and telling the truth about them. In building up a business, be careful not to make a false start by neglecting this. Found your business on truth, and the superstructure is bound to be a success, but if your foundation rests on false goods and false statements, your business is in danger of tottering at any minute and is almost certain of collapse sooner or later.

If you are in business "for keeps" you must strive to please the public permanently. It won't do to give real bargains occasionally, and practise a "skin" game in between. Never advertise what you haven't got and can't supply. To the crowd who visit your store in response to such ads you are simply furnishing an object lesson in lying. You will make more

enemies than friends that way. It is a great thing to have your advertisements implicitly believed. It is easy, too, if you always tell the truth. People are as quick to appreciate the truth as they are to condemn falsehood.

In building up a business you should choose your employes with great care and discrimination. Every one of your salespeople should be polite. Courtesy to all is one of the first essentials in a well-organized store. And the best way to teach your employees politeness is to set the example yourself in your relations with them. Don't earn a reputation for being mean or over-strict with your help. Try to make each individual feel that he or she is a part of the firm, and that much depends on his or her personal efforts. Do everything you can to make your help comfortable—kindness goes further than bullying. Well-treated employees are great advertisements. People will talk about where they work and how they are treated. Don't forget this item—it is a very important one. Your help, when out of the store, can do you a great deal of good or harm—just according to the way they are treated. And the more help you employ the more good or bad advertising you will get.

No big business is built up in a hurry. It takes time, patience, care, and watchfulness. It can't very well be done without advertising, and plenty of it, but such advertising is not so much an expense as a source of profit. Without it the business could not grow so fast or so extensively. With it, done judiciously, it can't help growing.

The advertising should be proportionate to the business. Never do more than you can afford to. At the commencement you have to be sparing of space. As the store grows so should your space—you can pay for it better, and the added advertising will make the store grow still bigger.

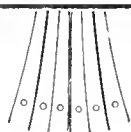
Another point in building up a business is to get a reputation for prompt pay. That's a big advertisement in itself. If you can pay cash for everything you buy you'll get the best, and you'll get it cheaper than the thirty or sixty-days man could. People will be glad to deal with you, are sure to talk favorably of you, and you'll get plenty of first offers or "options" on goods that credit men would not be asked to buy. The big businesses that have been built up in this and other countries were chiefly started and managed on the above lines.—*Printer's Ink*.

Injectons of lime water administered every morning for two or three days is said to be a positive cure for pin worms.

The *Pharmaceutische Wochenschrift* says; In order to mix balsam of Peru with oils, you must first mix it with a little castor oil. With this it makes a homogeneous mixture, with which any other fixed oil easily combines.



A Few Reasons



why every druggist should handle our

Aromatic Cascara

S. & M.

Our Specialties . . .

Aromatic Cascara
Bitter Cascara
Vitalic Hypophosphites
Calisaya Cordial
Syr. Trifolium Co.
Apodyna

Bindshedler's Phenacetin
and Phenazone
(Antipyrin)

1. It is quite palatable.
2. One minim represents one grain of prime three-year-old Cascara bark.
3. Its small dose—10 to 30 min. We guarantee that it contains no foreign laxative or cathartic.
4. The price is reasonable, and consistent with purity and accuracy.
5. It is the most economical Cascara on the market.



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14 and 16 Mincing Lane, Toronto, Can.

Manufacturers of

. . . . Perfumes
. . . . Toilet Waters
etc., etc.

Agents for

Andrew Jergens Toilet
and Medicated Soaps

Home-Made Graduated Measures.

Graduations on glass bottles, measures, etc., may be easily engraved with the aid of a few small files, a set of six of which, of various shapes, can be bought at most tool shops for about one shilling. A small bottle of oil of turpentine, in which some camphor has been dissolved, is also very useful as a lubricant, although it is not absolutely necessary.

Suppose it is wished to graduate a bottle which will hold about ten ounces or half a pint of water. First fix a strip of gummed paper, about three quarters of an inch wide, vertically on the outside of the glass, taking care that it is long enough to come slightly above the place where the ten-ounce mark will be. When the gum is dry and the paper slip firmly secured to the glass, pour exactly ten ounces of water into the bottle, place the latter on a flat table, and when the surface of the water has become level and perfectly steady mark the height in pencil on the paper strip. Now take a dry graduated two-ounce measure, pour two ounces of water from the bottle and mark the level of the eight ounces remaining; in the same way register the position of the six, four, and two ounce marks. Then empty the bottle and proceed to refill it, one ounce at a time, marking the level of the water at each addition; every second ounce to agree with the marks made at first, and in this way the correctness of the measurements will be checked.

When satisfied with the accuracy of the graduations, file with one edge of a fine triangular file through the paper where each mark occurs, until you feel that the tool is cutting into the glass. The marks can be made any length you please; the file cannot slip, as the paper will keep it in the proper place. When all the lines have been well cut in, the paper can be removed and the marks deepened or made wider by using a differently-shaped file; the angle of a square or the edge of a very thin, flat one dipped in turpentine and camphor will make good, broad lines, that can easily be seen. If it is wished to number the graduations, Roman numerals are the easiest to make, but they should all be pencilled on the paper and cut through, as before described. It will generally be found on trial that two or three of the small files will easily cut the surface of the glass when used at the point like pencils; and in this case any sort of numerals or letters can easily be engraved, provided that they are first started through the paper.

The oil of turpentine should not be used until the paper has been removed, as it is important to keep the latter dry, but afterward the files will work much more easily and quickly with the aid of the lubricant. If thick, bold lettering is required, it should be drawn on the paper and the thick lines removed with a sharp-pointed penknife. In most cases it is better to cut through all pencil lines with a sharp knife before filing, as this prevents the files from becoming clogged.

If very broad lines are required, it is as well to commence them by making two thinner lines the proper distance apart; the surface of glass between the lines can then be easily chipped away with the end of a file.

There is not the slightest difficulty with any part of the operation excepting when elaborate writing is attempted, and even this can easily be mastered by anyone who is accustomed to use the pencil. The precautions to be observed are: First mark upon the paper every line that is required to appear upon the glass, and do not remove the paper until every line has been cut, or rather scratched, on the surface of the glass. Special care must be taken to ensure this in the case of lettering, as it is very difficult to remedy omissions in the absence of the paper.

Numbers or lettering will always look neater if placed between two parallel lines, which need only be lightly scratched on the glass. These will, in a great measure, prevent the tool from overshooting the mark.

If these instructions are carefully carried out, with very little practice measures and bottles can easily be graduated in such a manner as to give no evidence of the work of an amateur engraver.—*Photographic News*.

Preparation of Opium in Persia.

By no means a small or unimportant industry in Ispahan is the preparation of opium. Almost every native or European merchant who trades in this drug sees the opium prepared under his own eye. The following is the usual manner of doing this in Ispahan: The people commence to collect the drug early in May. The poppy-head is lanced in the afternoon, and the opium, which exudes and dries during the night, is collected into copper pots early the following morning. The opium gathered is kept in store, until it is required to be prepared, in thick earthenware or copper pots. For the process of preparing into cakes, special men are engaged who understand the manipulation of crude opium. First the opium is taken out of the pots and assorted; it is then put into a very large copper pot (as the quality of various villages give different "touch" and morphine, for this reason they are obliged to mix the bulk together so that all the cakes should be of one quality). Each manipulator has a smooth board about 23 inches long and 11 inches broad; he takes from the bulk about 1 lb. of the crude opium and rubs it on the board; puts in the sun about ten minutes, and afterwards takes it into the shade and rubs it continuously on the same board with an iron implement having a wooden handle something like a small solid spade, and continues in the same manner until it dries up to a certain degree; it is then collected in a mass sufficient for about a day's work, and then heated over a slow charcoal fire, in trays, until it becomes plastic; again each man takes about a

$\frac{1}{4}$ lb. weight and keeps kneading it on the board and manipulating it with the implement, as already described, until it dries up to the standard degree and assumes a somewhat golden color.

The opium is then collected and made up into cakes of 1 lb. each. The cakes after a couple of days are wrapped up in pink paper and tied round with string, then put into tin boxes, packed in layers with poppy chaff, so that the cakes do not roll about, then again packed into wooden boxes; the boxes are covered with hide and gunny, and the opium is then ready for exportation. If the drug is prepared in cold weather, it has to be dried in the beginning by artificial warmth and by rubbing on the board, and keeping the boards while in manipulation near a charcoal fire. The highest morphine of Persian opium is 12 per cent., and the "touch" 90 per cent. The tests are made by the best known methods as used in London.—*Consular Report (Phar. Journal)*.

Medicine and Pharmacy in China.

In many Buddhist monasteries in China the science of medicine is taught to those who wish to dedicate themselves to its practice, and some of these establishments are, either directly or indirectly, under imperial patronage. There are some extremely well-endowed monasteries, which, in addition to the fat income they enjoy, are the possessors of libraries of medical literature, consisting of more than 40,000 volumes; but the teaching given is of the poorest and most deficient description one can well imagine. Official protection exists only in name, and the exercise of the medical and pharmaceutical professions is entirely free. Any individual becoming tired of his proper calling, be it laborer or cobbler, can soon become a doctor if he has a wish to do so, and to attain his object must first enter one of these monasteries, where he is allowed to copy out certain volumes of medical books, particularly such as treat of the pulse and of herbal remedies. Afterwards, without any other instruction or information than what he has derived from these books, he is a fully fledged medical man, ready to practise, and when he wishes to do so he locates himself in some central position, at a street corner, in a square or market, or any spot where there is plenty of traffic and people passing to and fro, there to wait consultations. But in order that a consultation should bear fruit, our improvised doctor must give an air of mystery to his acts and words. With this in view, he procures a small bird about the size of a sparrow, which he trains to draw a little folded paper from a tin box. This paper has written upon it, in Chinese characters, the number of a certain paragraph in his dictionary of medicine, which is thereupon turned to, and such remedies as are therein mentioned are applied to the patient, whether they are

appropriate or not. The bird, when its duty is accomplished, is regaled with a grain of rice, and hops back into its cage. Before proceeding to specify the remedies to the patient, the doctor feels his client's pulse, and whilst noting its peculiarities discourses learnedly on the infirmities from which the sick man's ancestors suffered, which he pretends are revealed by the pulsation. The advice and remedies having been given the consultation is paid for at the rate of ten or a dozen "cash." If the doctor succeeds in making a name for himself in this fashion, which in China is not difficult, he stops his street practice and establishes himself in a house, whereupon the fees increase in amount until, if he be very fortunate, he may even receive one or two dollars for each, or about 1600 to 2000 cash. In China a doctor's fame is measured not by his numerous *clientèle*, or by his learning, but by the number of sick patients who have died under his treatment; and whenever a patient dies in his hands the authorities place a small lantern by night over the doctor's door, so that the public may know of his want of success. To lend an air of wisdom and gravity to their appearance, Chinese doctors wear large spectacles with gold or silver mounts, and with smoked glasses; they clothe themselves with brown or yellow silk garments, and for headgear adopt a sort of black biretta, shaped like a Grecian helmet, and topped with a red ball the size of a walnut.

They wear the Chinese shoe, more or less artistically worked according to lucrativeness of their practice. A long pig-tail is by them regarded as a sign of distinction and well-being, so that they all have the adornment carefully plaited and dressed; but if this, by reason of its scantiness, does not lend the requisite tone to their presence, they increase its length artificially until it meets with their approval. During the time the medical apprentice remains in the monastery, his tonsured masters, the monks, feed him upon boiled rice, vegetables, and tea, so that by simplicity of diet he may become impressed with the small amount of food really necessary to bodily well-being. By this means he is so imbued with the monkish ideas concerning medicine that on his setting up in practice he tells his clients that the origin of all suffering are the good or bad spirits, cold, heat, hunger, or abundance. Medical schools on the European system have been established by the English Protestant missionaries in various parts of the Chinese Empire, but their halls are nearly deserted, for the Chinese say that European doctors' science consists simply in the use of the knife—an instrument for which the Chinese have an ineradicable horror.—*Pharmaceutical Journal*.

SULFINIDUM ABSOLUTUM.—Pure, 100 per cent. or absolute saccharin, or saccharin freed from *para* acids.

Hints for Successful Window Dressing.

By "MARITIME."

If possible, fill window with one preparation only. Let it express *one idea*, whether it be variety of styles or prices of a certain article or quantity kept in stock. If tooth brushes be the idea, let your window express one or other or both of the two ideas, either that you have tooth brushes of all values, or a large stock of one good-value brush which you thought such good value that you bought a large lot of these brushes. If the idea be toilet articles, see that every requisite or luxury for the toilet is displayed; but if it be one toilet article only, such as sponges, pile up the window with sponges, and if you can make the window attractive by curious sponges do so. If you are running advertisements in the daily papers of your town see that they attract attention to your window. If your window is filled with whisks let the ad. tell the advantages of your stock of whisks over every other merchant's stock; and if it be babies' requisites that pile your window, herald forth the every need of infants in the daily newspapers.

Remember the saying, "Everything in its season." When flies come fill up the window with fly paper, sticky fly paper, fly traps, insect powder, and insect guns. When bathing time has come let it be pocket combs, bathing caps and hoods, bath towels, bath gloves, bath brushes, and floating soap. When Oddfellows' day is at hand make use of the three links for window dressing. On the 24th of May reproduce in arrangement of goods, or display as a background, the good old lady of England, and on Christmas day let Santa Claus or some suggestion of the season be conspicuous in your window. Let no anniversary or event capable of lending color to your window decoration pass without calling in its aid to the claims of your window.

An advertisement of spring requisites chills one in midsummer, so does a display of sarsaparillas in August, of fly papers in January, or of root beer in April. Be timely, neither anticipating nor lagging behind hand.

Let your window be artistic and original. Study contrast and harmony of color, and arrange different colored articles in sympathy with rules of harmony and contrast. Adopt and copy every new idea so long as it was not originated by your competitor, for in this case you declare openly, "He leads, I follow."

Above all, change your window dressing frequently. Old ads. are useless, so are old window dressings; finally, as "cleanliness is next to godliness," see that your window glass and everything it encloses is as spotless as the fairest linen cloth or the reputation you admire and work for.

A New Aperient Water.

By GEHEINRATH PROFESSOR OSCAR LIEBERICH, M.D.

It has oftentimes been pointed out—and that, too, with reference to mineral

waters—that the first condition of therapeutic efficacy is the constancy of the remedy employed. In the case of natural mineral waters this point is of the greatest importance. The aperient waters offer the one sole exception in regard to this constancy among our natural mineral springs. These are formed by impregnation of the natural basins which supply the mineral constituents. From this, as observation teaches us, there arises an extraordinary inconstancy of the chemical constituents. The aperient waters, therefore, form an exception to the mineral springs proper. For medical purposes it is absolutely necessary, in prescribing this water, to know the dose. It has happened, not infrequently, that a wineglassful of aperient water has been shown to contain the same amount of mineral constituents as the practitioner would, from the analysis, expect to be present in a tumblerful. It is obvious, therefore, that neither the practitioner nor the patient can form a correct opinion in this manner; and under these circumstances it may even happen that an unexpectedly great degree of concentration may do harm by useless irritation of the intestines. There is a further disadvantage arising from changes in mineral constituents, so that, instead of the sulphates which the water should contain, chlorides are present in an injurious amount. The opinion has very often been expressed that the bottling of such waters should be under scientific control, so that their proper constitution should be ensured exactly in the same way as that of other medicines is regulated by the Pharmacopœia. It is, therefore, a matter for high satisfaction that the aperient water, "Apenta," from the Uj Hunyadi springs in Ofen, has been placed under state control. The Royal Hungarian Chemical State Institute (Ministry of Agriculture) has undertaken this charge, and, therefore, it is now possible to obtain a water which is free from injurious extraneous waters infected with organic substances. The analysis has been published by Professor Liebermann, director of the said Institute. The proportion of sulphate of soda to sulphate of magnesia is 15.432 to 24.4968 in the litre, so that this water is to be classed with the best aperient waters, and may be pronounced one of the strongest. Owing to the constancy of the Apenta water, ensured by the state guarantee, that confidence in aperient waters which had been lost will be revived through this important therapeutic agent. The constancy of the Apenta water makes the use of it indicated, not only as an occasional purgative, but in systematic courses of treatment. It is particularly recommended for the regulation of tissue change in the most diverse diseases, in obesity, chronic constipation, portal obstruction, hæmorrhoids. Whether the lithia contained in this water is of any therapeutic importance is at present doubtful, but its presence is a distinctive feature in the analysis.—*Therapeutische Monatshefte*.

TO RENT.

20 20

Best Drug Stand in Canada

The most desirable unoccupied stand in Canada is the corner store of the MASONIC TEMPLE, LONDON, and very little investigation will convince anyone of the fact.

It is the nearest to all the hotels, the railway station, and the market, besides adjoining the Grand Opera House, and a large transient trade can be had.

The shop is on the corner of Richmond and King streets, is heated by steam, and the rent (which is very moderate) includes both heat and taxes

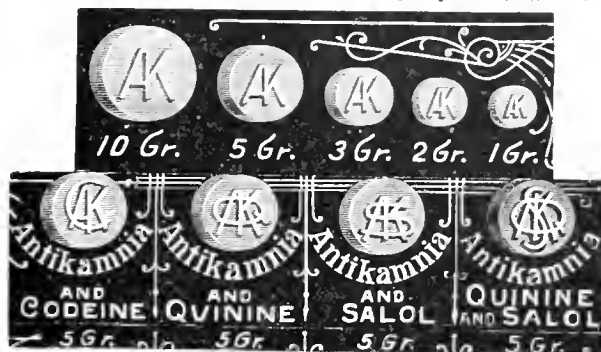
A smart, active man who has the confidence of the medical profession should make a fortune here. There are several wholesalers in the city, and only a moderate stock need be carried.

For terms and other particulars apply to

John Overel,
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London, Ont.

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ANTI-KAMNIA TABLETS,
(1 gr., 2 gr., 3 gr., 5 gr., or 10 gr. each.)
ANTI-KAMNIA and CODEINE TABLETS,
(1½ gr. Antikamnia, ¼ gr. Sulph. Codeine.)
ANTI-KAMNIA and QUININE TABLETS,
(2½ gr. Antikamnia, 2½ gr. Sulph. Quinine.)
ANTI-KAMNIA and SALOL TABLETS,
(2½ gr. Antikamnia, 2½ gr. Salol.)
ANTI-KAMNIA, QUININE and SALOL TABLETS,
(2 gr. Antikamnia, 2 gr. Sulph. Quinine, 1 gr. Salol.)



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These preparations are made solely by us and are put up in 1-oz. packages only.

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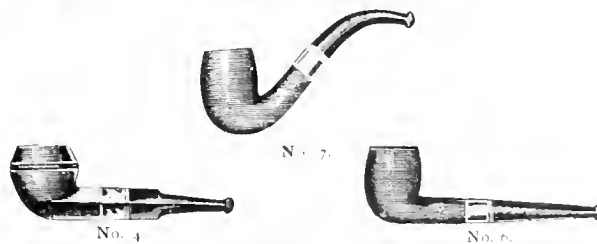
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NO MORE BURNING OF THE
TONGUE AFTER A LONG SMOKE

NO MORE NICOTINE IN THE
MOUTHPIECE OF THIS PIPE

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SIX DIFFERENT SHAPES IN STOCK

RETAIL PRICE, 50c. and 75c.

This Cartridge absorbs all Nicotine and purifies the smoke, and is to be replaced by a fresh one when saturated

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Take it up; it will increase your pipe trade, and you will make steady customers for Cartridges.

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Needs to take care of his health and not wait till he gets sick. This can be done by keeping the system well nourished. A cup of **Johnston's Fluid Beef** regularly, night and morning, will do this effectively.



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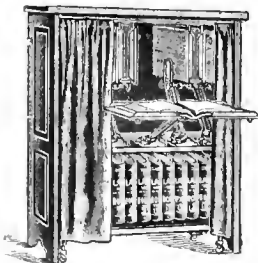
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Lower shelf for other books
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P. R. WRIGHT, Proprietor.

Report of the Annual Meeting of the New Brunswick Pharmaceutical Society.

The twelfth annual meeting of the New Brunswick Pharmaceutical Society was held at St. Andrews, N.B., June 24th, 1896. The meeting was called to order by President M. N. Paddock at 4 p.m.

Members present: Messrs. J. M. Wiley, of Fredericton; W. H. Clark, of St. Stephen; J. D. B. F. Mackenzie, of Chatham; T. R. Wren and E. A. Cockburn, of St. Andrews; M. V. Paddock, R. E. Coupe, R. W. McCarty, C. Walter Clarke, Thos. Crockett, Clinton Brown, S. MacDiarmid, Chas. F. Wade, W. H. Mowatt, of St. John.

The meeting being held on the day following the Dominion elections, the attendance was smaller than usual, many familiar faces being "conspicuous by their absence."

The minutes of the last meeting having been read and confirmed, the report of the council was presented as follows:

To the President and Members of the New Brunswick Pharmaceutical Society:

GENTLEMEN,—Your council has the pleasure of reporting a quiet and uneventful year in the administration of the affairs of the society, a year showing improvement and advance in membership and in finances.

The Pharmacy Act would appear to be becoming better known, respected, and appreciated.

The eight meetings of the council during this period have been devoted entirely to the consideration of business of a routine character, and we have not found it necessary to resort either to litigation or legislation.

One examination was held, namely, on the 9th of the present month, sixteen candidates having notified the registrar of their intention to present themselves before the board of examiners. Of these two passed in preliminary subjects, and four completed the qualifying examination and became entitled to the diploma of the society. Section 8 of the Pharmacy Act, requiring the general meeting of the society to be held in June of each year, is found to cause inconvenience and your council would suggest that legislation be obtained permitting the meeting to be held in June or July. Some changes are also necessary in the regulations of examinations.

Respectfully submitted,

W. H. MOWATT,

Secretary.

St. John, N.B., June 19th, 1896.

The secretary then read the treasurer's report, as follows:

TREASURER'S REPORT.

Receipts.

1895.		
June 17—To balance in Bank of New Brunswick.....	\$ 82	89
1896		
June 15—To cash from Registrar.....	205	20
" 18— " " ".....	2	00
" 19— " " ".....	15	80
	<u>\$305</u>	<u>89</u>

Expenditure.

1895.		
Nov. 13—Geo. L. Day, printing.....	\$ 2	00
" 13— " " " post-cards, etc.....	1	75
" 13—Telegraph Publishing Co., notice.....	4	50
" 13—Sun Publishing Co., notice.....	4	50
1896.		
May 9—New Brunswick Historical Society, rent.....	3	50
" 10—R. W. L. Tibbets, <i>Royal Gazette</i>	15	30
June 10—E. I. Armstrong, printing.....	5	
" 18—M. V. Paddock, examination fee.....	10	00
" 18—C. Walter Clarke, examination fee.....	10	00
" 18—L. C. Allison, M.D., examination fee.....	10	00
" 18—W. H. Mowatt, examination fee.....	10	00
" 18—W. H. Mowatt, stationery.....	3	03
" 18—W. H. Mowatt, Secretary's fee.....	25	00
" 19—R. W. McCarty, Registrar's fee.....	50	00
" 19—R. W. McCarty, stamps, etc. fee.....	4	25
" 19—By balance in Bank of New Brunswick.....	151	50
	<u>\$305</u>	<u>89</u>

HAZEN J. DICK,

Treasurer.

St. John, June 19, 1896.

Report of the treasurer was followed by reading of registrar's report.

Statistical report of Registrar of the New Brunswick Pharmaceutical Society for the year ending June, 1896.

Mr. President and Gentlemen:

The total membership of the society is now 129—an increase of 2 from last year—and is made up as follows:

Business qualification.....	57
Diploma holders.....	50
Physicians.....	12
Servitude.....	10
Total.....	129

Three have gone out of business. Three diploma holders have gone into business on their own account. Four physicians have received certificates qualifying them, and have opened drug stores, and are as follows: Dr. Lewis, succeeding to the late John A. Beatty, at Hillsboro'; Dr. Irvine, of Boiestown; Dr. Churchill, at Bristol. Kent Co.; and Dr. Case, of St. John North, succeeding the late Dr. McLean. The number of drug stores under certificates to physicians is on the increase.

One death has occurred, that of Dr. H. H. McLean, of St. John North. The late doctor was well and favorably known, and was always zealous for the welfare of the society, and took a deep interest in the debates at the meetings.

Six members are not gazetted this year, their remittances being received too late to permit their being published in the *Royal Gazette*.

No examination was held in January last; at the June examinations sixteen applications were received by the registrar—four for preliminary and twelve for final. Four candidates passed, and are entitled to receive diplomas. The re-

ceipts from applicants are not as large as usual, all but three of them having been up before.

The past year has been an exceedingly quiet one for the society. Much credit is due the members for the prompt manner in which they have remitted their fees, and for their general desire to conform to the rules. There is but one unpaid member this year. As a society, I feel we compare favorably with similar bodies. I desire, as registrar, to express my sincere thanks to you all for advice and assistance rendered through the year, and for the courteous manner in which the registrar's demands have been met.

FINANCE REPORT OF REGISTRAR, 1895-6.

Receipts.

To fees for registration from 100 members at \$2 each.....	\$200	00
For diploma.....	5	00
Arrears.....	5	00
Cash from applicants for examination.....	15	00
	<u>\$225</u>	<u>00</u>

Expenditures.

By fee received from Dr. L. Chapman.....	\$ 2	00
By cash paid treasurer.....	223	00
	<u>\$225</u>	<u>00</u>

R. W. McCARTY,

Registrar.

St. John, June 19th, 1896.

Your committee appointed to audit the accounts of the registrar and treasurer beg to report that they have attended to that duty, and find the same correct. The balance on hand of \$151.56 has been duly deposited in the Bank of New Brunswick.

C. P. CLARKE, } Auditors.
H. L. GANTER, }

St. John, N.B., June 22nd, 1896.

On motion of Mr. R. E. Coupe, seconded by Mr. E. A. Cockburn, it was resolved that the reports of the council, treasurer, registrar, and auditors be received and entered on the minutes.

REPORTS OF COMMITTEES.

The committee appointed to make provision for lectures to students of pharmacy reported as follows:

The Lecture Committee appointed by the Pharmaceutical Council beg to report that after considerable difficulty a course of twenty-five lectures on pharmaceutical chemistry was arranged for. The course was advertised in the city papers, but it was only after the committee had made a personal canvass of the drug clerks that a sufficient number of students was obtained to warrant proceeding with the lectures. The committee fortunately secured the services of a member of our society, and have every reason to believe that the clerks who attended have received considerable benefit from his careful instruction. Annexed is the financial statement, showing a balance on hand of \$52.07. Your committee ask to be discharged.

S. McDIARMID, } Committee.
ROBERT E. COUPE, }

St. John, N.B., June 17th, 1896.

LECTURE COMMITTEE ACCOUNT.

Received.

Balance from last committee	\$ 96 07
1895.	
Nov.—12 students at \$3 each	36 00
	<hr/>
	\$132 07

Paid.

1895.	
Nov. 7th— <i>Sun</i> advertisement	\$ 2 50
“ 7th— <i>Telegraph</i> advertisement	3 00
“ 7th— <i>Globe</i> advertisement	3 50
“ 7th—Coal	55
1896.	
March 9th—Coal	55
June—Postage	20
“ —Care of room	3 00
“ —Lecturer	49 00
“ —Chemicals, per bill	23 00
“ —Chemicals (W.H.M.)	3 10
	<hr/>
Total	\$ 79 40
Balance on hand	\$ 52 67

The account of the Lecture Committee with the vouchers has been examined by the auditors and found correct. It shows an expenditure of \$79.40 and receipts of \$36 for the last course of lectures. They have been enabled to meet this by the previous balance on hand of \$96.07, leaving for future purposes a balance now on hand of \$52.67.

C. P. CLARKE, | Auditors.
H. L. GAUTER, |

June 23rd, 1896.

It was moved by Mr. R. W. McCarty, seconded by Mr. Clinton Brown, that report of Lecture Committee and auditors' report be received and entered in the minutes. Carried.

ELECTION OF COUNCIL.

The following nominations were made : F. R. Wren, Clinton Brown, J. M. Wiley, W. H. Clark, W. H. Mowatt, M. V. Paddock, E. A. Cockburn, R. E. Coupe, C. Walter Clarke, H. J. Dick, Struan Robertson, T. A. Crockett, Chas. F. Wade, J. D. B. Mackenzie, Geo. A. Moore, J. Sutton Clarke, R. W. McCarty, Chas. W. Parker, C. T. Nevins. Balloting was next in order, and Messrs. S. McDiarmid and R. E. Coupe were appointed scrutineers. The ballots being collected and counted, the following were declared elected for the ensuing year : Messrs. M. V. Paddock, Chas. W. Parker, Struan Robertson, R. E. Coupe, C. Walter Clarke, W. H. Mowatt, H. J. Dick, Thos. Crockett, R. W. McCarty, F. R. Wren, Clinton Brown. Messrs. C. F. Wade and John M. Wiley having received an equal number of votes, a second ballot was taken, and Mr. Wiley was elected.

The retiring president then addressed the members as follows :

Gentlemen of the Pharmaceutical Society.

On looking over the by-laws of the act of incorporation of this society, I find the duties of the president stated to be, that he shall preside at the meetings of the society and council, have the custody of the seal, sign certificates of membership, diplomas, etc. This comprises the written duty ; but there is, I take it,

a larger and more important unwritten duty or obligation which the president owes the society—a duty he owes in common with the members, differing only in degree, it being manifestly the duty of the president to make a more strenuous effort and keep a more watchful eye over the interests of the body over which he is elected to preside. Whilst attempting to keep this object in view, and at the same time to be as concise as possible and take up as little as possible of your valuable time, I will bring before you a short review of the past year, and endeavor to direct your attention to what I consider to be the interests of the society for the coming term.

You have learned from the reports of the secretary, registrar, and treasurer how the affairs of the society stand. You have noted in the secretary's report that we held only one examination last year, there being an insufficient number of candidates in January. I might here direct your attention to the fact that the balance in the bank is, in consequence, from \$60 to \$70 larger than it otherwise would have been, and I would suggest that it would lessen the cost of running the society if members would use their influence to induce their clerks to come up for examination in June. The larger part of the expenses of this society is the cost of holding examinations. Twelve candidates in June can be examined for just one-half the cost of six in June and six in January. You have also heard the report of the lecture committee. The result in the number taking the course was rather disappointing. The facilities for an instructive course of lectures on chemistry were provided at a very small cost, but many of the young men apparently did not think it worth while to avail themselves of the opportunity, preferring when the time comes around to run their chance of scrambling through the examination as best they may ; under these circumstances it cannot be a matter for surprise if young men who will not make use of opportunities like these should fail when they come up for examination. Those who did take the course have profited very materially by the instruction gained therein.

Since last June a change has been made in the N.B. Liquor License Act, which, although it contains some changes of importance to liquor dealers, does not materially affect the druggist, the regulations, as far as they are concerned, being very similar to the old act, the druggist being required in the new act, as in the old, to keep a record of liquors sold, a prescription being required for any quantity larger than six ounces. Members will find the poison register useful in this respect ; the liquor may be entered under name and quantity of poison sold. The affairs of the society seem to be running smoothly, and the delinquents fewer than ever before. Occasionally complaints come from members that they would like to know what we are doing ; of course, it

may be said that they might attend the annual meeting and find out ; but there are two classes, some who will not attend, and some whose circumstances are such that they cannot, and for the benefit of this latter I would suggest that the secretary should make his report of the annual meeting as full as possible, and the report should be printed each year. One year the report was printed, and, through the kindness of the publisher of THE CANADIAN DRUGGIST, the printing cost the society nothing but expense of mailing. It certainly does not seem unreasonable that parties so situated that they cannot attend these meetings should wish to know what we are doing, and that the sending to them a report of the proceedings would be no more than their due.

The druggists generally throughout the province seems to be holding their own, and the times are fairly prosperous with the most of us, but, while, as a matter of fact, there is hardly any retail business, so much what the proprietor himself chooses to make it as the retail drug business we must not allow ourselves to lose sight of the fact that as far as human foresight can judge in the future, the lot of the retail druggist in the cities will be no exception to that of other retail trades. The department store, that huge octopus whose feelers seem to reach out to the ends of the earth, and into which a process of evolution seems to be changing our most successful dry goods establishments, is not any more likely to respect the retail drug trade in New Brunswick than in any part of the world, and the fact that we have been free from them in the past is no criterion that this state of things will continue, and although this subject does not perhaps come within the exact scope of this society, still, as it pertains very much to the interests of us all, I may be permitted on this occasion, when we are met together, to make a few remarks. To the historian of the future, looking back to the latter part of the nineteenth century, one of the most noticeable points will be the sudden breaking away from old methods, methods of doing business, methods of thought, locomotion, specialization in the sciences, greater educational facilities in all branches, a grand broadening and widening of all the arena of life, and all this is going on amidst the keenest competition. The very facilities of education, so much greater than they were when some of us left school, have served to increase the competition. It is eminently an age of the survival of the fittest ; man cannot stand still, he must move with the current, or be left stranded. The individual himself has no say in the matter ; borne on by the resistless current, he must work, and compete, and strive, must make his prices as low as the lowest, be it either his neighbor, a druggist on the next corner, or the large department store five blocks away. In no line of business has the change been greater than in the retail drug trade ; cut into on all sides, the future at times looks most

dubious; the manufacturing pharmacist with his ready made prescriptions, the grocer with his soap, the dry goods man with perfumes and toilet goods, the confectioner with soda water, are all dividing the druggist's trade with him, and all this leaving out of the question the department store. I do not wish to be pessimistic, nor to send the members of this society away in doubt as to whether they will have any business left in ten years, but the question to which we must give our attention is, What can we do, either as a society or as a movement under the auspices of a society, to enable us to hold back the storm for a few more years and to be ready when it comes? While this question may not be pertinent to this meeting, still, as I said before, it will do no harm to think it over, even if we take a year to do so. That something can be done to hold back the movement for a time the action of the Ontario druggists has demonstrated to us, and as additional evidence of success I would point out a case which is now before the Supreme Court of New York, in which a certain wholesale firm is applying for an injunction against the National Wholesale Druggists' Association, because the members of this society are cutting off the firm's supplies, knowing that it is in the habit of supplying cutters. As we stand here in New Brunswick we have been fortunate so far, but in Upper Canada, and even in Nova Scotia, the members of our calling have not been so lucky. I have given the matter some little thought, and it has occurred to me, merely as a suggestion to be offered to this society, that a committee might be formed under its auspices, to report from time to time to the council, whose duty it should be to put themselves in communication with the Society of Ontario Retail Druggists, and when it is thought necessary to send notices to the retail trade in this province, and so furnish them with such information as may enable them to guide themselves according to circumstances. The cost of postal cards and printing would be small, and the utility to the trade would certainly be appreciable, but this is for you to decide. The question is one of vital importance to us all, and I have felt it to be my duty to bring it before you. There is another matter that might perhaps be dealt with by the new council, that is, having a clause added to the act relating to the time of holding the annual meeting. I think I am stating the sentiments of the present council when I say that they consider June a little too early in the year for holding the meeting, and that a clause might be added allowing us a little more latitude in this respect.

I wish to tender my thanks to officers and members of the council for the kind and courteous manner in which they have given me their assistance during the term, and thanking you all, gentlemen, for the patience with which you have listened to this address, I have the honor to be,

Yours faithfully,

M. V. PADDOCK, President.

Vigorous applause followed the delivery of the president's able and instructive address, and Mr. R. W. McCarty voiced the sentiments of all present when he moved a hearty vote of thanks. This was seconded by Mr. Clifton Brown, and carried unanimously. It was also resolved that the address should be embalmed in the minutes. As the hour was getting late, it was resolved to have Mr. C. W. Clarke's paper on pharmaceutical subjects read after dinner.

Mr. W. H. Clarke enquired if council had taken any steps towards obtaining legislation exempting registered druggists from jury duty. It was found that a committee had been appointed, but on account of various delays no decided action had been taken. It was resolved that this matter and also time of holding the annual meeting and the changes required in regulations of examinations, including Mr. Wiley's motion concerning apprentices, should all be referred to the new council to deal with, accompanied by a request that they shall have early and thorough attention.

Mr. T. R. Wren called attention to the cutting of prices in Ontario and the efforts being made to suppress the cutters, and, after short speeches from several members, Mr. W. H. Clark moved that a committee be formed to correspond with the Retail Druggists' Associations of Ontario and elsewhere, and report at next annual meeting, and suggested as such committee Messrs. R. E. Coupe, M. V. Paddock, and C. Walter Clarke. This was seconded and carried.

On motion of Mr. C. W. Clarke, the President requested Messrs. W. H. Clark and W. H. Mowatt to prepare and read papers on pharmaceutical subjects at next annual meeting. Mr. R. E. Coupe moved that the proceedings be printed and a copy mailed to each member of the society. This was seconded and carried.

There being no further business to come before the meeting—and the supper gong of the neighboring hotel having sounded—a motion to adjourn was put and carried with commendable promptness.

Annual Meeting of District No. 10— Perth, Oxford, and Norfolk.

BUSINESS AND PLEASURE—ALL ENTER-
TAINED—EVERYONE HAPPY—MORE
WILL MEET THE NEXT MEETING.

"Ho for Port Dover!" was what the druggists of District No. 10 said on Thursday, June 25th, and "Hurrah for Port Dover!" was what they said when they returned on Saturday morning in time for business, happy, sunburnt, and feeling much the better for a day's outing. "All work and no play" makes both Jack and his master dull, and the meeting of the Pharmaceutical Association of District No. 10 at Port Dover on Thursday evening was called to allow the members who attended a chance to surprise themselves with a day out of their stores and

away from business. The result of the meeting was a great success; the attendance was not as large as expected, but still more than twenty members were present, and it is safe to say that when the next meeting is called those who were there will be on hand, and will bring others with them. As it was to be an evening meeting, none appeared anxious to go to it until the sights of the village were viewed. The monster new ferry boat, taking out a moonlight excursion, almost tempted the members to get on board, but about 9.30 they gathered in the parlor of the Dominion Hotel, and proceeded to business. Among those present were Mr. N. A. Bosworth, Stratford; C. E. Nasmyth, Stratford; W. B. Barley, Mitchell; H. W. Ainsley, Port Dover; R. M. Taylor, Port Dover; C. Austin, Simcoe; G. Byers, Delhi; G. W. Walley, Ingersoll; Dr. Anderson and Mr. Anderson, jr., Burgessville; Messrs. Edmunds and Layton, Norwich; W. A. Karn, J. G. Karn, J. F. Pepper, and D. A. White, Woodstock; Mr. J. S. Mills, Jarvis, of District No. 9; Mr. J. Mattinson, of London Drug Co.

After the secretary read the minutes of the last meeting, President Karn shortly reviewed the work of the year. The officers of the year were then elected, Mr. W. A. Karn declining to be re-elected.

Mr. N. A. Bosworth, of Stratford, elected president; Mr. H. N. Ainsley, of Port Dover, elected vice-president; Mr. D. A. White, of Woodstock, re-elected secretary-treasurer. The members then listened with attention to Messrs. Nasmyth, Bosworth, and Mills tell what it was like to have cutting to compete against, and what they did to combat it, and how they succeeded.

Mr. W. A. Karn told the success the Infringement Committee of the O.C.P. had had, and what they were doing, also giving a full account of his work in college matters.

Messrs. Pepper and Austin then spoke at length as to what the new association had done, what they were doing, and what they intended to do, giving much information and showing that great good had already been accomplished, and still greater was hoped for.

Mr. Mattinson, of the London Drug Company, spoke of the friendly relations existing between the wholesalers and the retailers.

Full discussion on all these subjects ensued, and all the speakers had to answer a running fire of questions that reminded one of an election meeting had it been before the 23rd.

Moved by Mr. Bosworth, seconded by H. W. Ainsley, and *resolved*, "That the secretary write the Ontario Society of Retail Druggists asking them to act with decision in the matter of cutting that still exists."

Moved by C. E. Nasmyth, seconded by H. W. Ainsley, and *resolved*, "That the Council and the Ontario Society of Retail Druggists be requested to use their influence to have Paris green and sulphate

of copper added to the poison list in schedule 'B.'

Moved by W. G. Walley, seconded by W. A. Bosworth, and *resolved*, "That the Druggists' Association for District No. 10 desires to record its deep sorrow at the death of Mr. John Gayfer, of Ingersoll, which sad event has taken place since our last district meeting. That we wish to express our high appreciation of his sterling worth as a gentleman of high character, strictly honest, and a thoroughly good and upright druggist, and we further desire to convey the respectful sympathy of this district to the widow and family in the sadness of their bereavement."

Moved by J. T. Pepper, seconded by C. E. Nasmyth, and *resolved*, "That the district association endorse the action of the Infringement Committee of the O.C.P., and that they be encouraged and urged to prosecute the successes already attained, and that we desire them to go on and let us see where we stand. If our Pharmacy Act is good we want to know it, and desire to profit by it, and if it is not what it is intended to be we are equally anxious to know it."

Membership committees for the counties were appointed as follows: Perth county, Messrs. C. E. Nasmyth, S. Fraleigh, S. Hodge; Norfolk county, Messrs. C. Austin, R. M. Taylor, G. Byers; Oxford county, Messrs. J. T. Pepper, G. W. Walley, W. A. McCollum. After passing the usual votes of thanks the meeting adjourned, all agreeing that it was the best and the liveliest meeting ever held in the district and that no mistake was made in holding it in Norfolk county. Then Mr. Austin, the chairman of the Entertainment Committee, announced that a steam yacht would be at the service of the members to convey them to the Long Point cottages. Nearly all the members were able to take advantage of this, and the few who were not able missed one of the finest trips of the season. All now took part in telling fish stories and of the past struggles with monsters of the deep, etc. "But as the early bird catches or is supposed to catch the worm" some of the members, who were evidently fishermen before taking to dispensing drugs, informed us that an early start was as good as having a basket of black bass already caught, and this inducement led the meeting to adjourn to the wharf, where, after a short delay, we got the captain and engineer of the *Maid of the Mill* to get up steam in a hurry, and by a little after 3 a.m. we were all snug and comfortable in the cabin and busy counting the fish we did not catch. As the storm which spoiled the moonlight trip early in the evening was over, the moon was doing its best to make up for lost time, and it was a grand, bright moon that sparkled in the waters of the bay, and just enough of a swell to cause some to wonder if they would not feel the fish before the trip was over. We had hardly reached open water before all were both surprised and delighted by two sweet tenor singers from

Perth county, under the influence of moonlight and freedom, starting the merry strain, "Moonlight on the lake." "Tommy Atkins," "There is only one girl in the world for me," and other songs followed, keeping all in the best of humor during the trip. The musical capabilities of this district are now acknowledged to be first class. Shortly after 4 a.m. all were called on deck to see the sunrise and it seemed such a surprise to many that you would imagine they loved a "little more sleep," etc., in the morning. After a delightful trip of a little over two hours we reached the celebrated cottages of Long Point, and under Mr. C. Austin we arranged our fishing tackle, and soon all were busy trying their best to drown the poor worms on the end of their fishing lines. The fish had evidently been warned of our visit, or else had not returned from the elections, as the only ones left at home that morning, as far as we can tell, were a pike, a pickerel, one fine large black bass that went to London, and a large snapping turtle that for a time was attached to Stratford. Numerous small fry, such as sun fish, etc., were on hand, but it was Mr. Pepper who found out the perch, and fine large ones they were. This was good, fast sport, and all were busy for a couple of hours, with more or less success, till the bell rang for breakfast, which was served in the large club room. All had their appetites with them, doing justice to an elegant spread. It was now nearly 9 o'clock and many believed the clock to have stopped, as it was certainly a long time since they left their beds. Fishing, sailing, and seeing the sights took up the rest of the day, and when the time for leaving approached it was found that the day was only too short. A pleasant evening trip to Port Rowan, a good night's rest, an early breakfast, and a fast ride home, and we were behind the counters again, just as if we had not been away, if only the sunburn on faces and hands did not tell the story. The arrangements of the outing were splendid, and too much credit cannot be given to Messrs. Austin, Ainsley, and Taylor for their trouble in giving the best outing District No. 10 members ever had; and if Port Dover is not made the annual meeting place it will be because it is gerrymandered and some other district secures it. To the officers and members of other associations we say, Try our scheme; combine business and pleasure; and see if the results are not satisfactory. We were surprised, and did not imagine there was so much fun in the long faces so often seen behind the prescription cases. A proposal has just been received that the annual meeting be made a monthly one, and this will receive due consideration.

NOTES OF THE TRIP.

Words and music of our popular song, "There is only one girl in the world for me," can be obtained from W. B. Barley, Mitchell.

Garden parties are tame after fishing.

Even well-worn fishing clothes won't catch fish wholesale.

Oh yes, Messrs. Nasmyth, Bosworth, and Wallinson like to ride in the row-boat in tow of the steamer, but when the captain gave orders for four bells, and the boats began to ship water, they soon cried "man overboard." Brave fishermen!

A Clinical Study of Antikamnia.

The *New York Medical Record* contains an exhaustive article under the above caption by Samuel Wolfe, A.M., M.D., physician to the Philadelphia Hospital: Neurologist to the Samaritan Hospital, Philadelphia. He summarizes as follows;

"I feel justified, from my experience, to formulate the following conclusions:

"That antikamnia is valuable for reducing temperature in febrile complaints.

"That it is of service in many forms of pain connected with febrile diseases.

"That it has a field of use in rheumatic and gouty affections.

"That in neuralgic and myalgic pains it is not only palliative, but along with other measures assists in ultimate cures.

"That in neurasthenia, hysteria, and migraine it is a valuable adjuvant to the other organized therapeutic measures.

"That in organic nervous diseases it has a field of application.

"That it is the least depressing of all the drugs that can exercise so extensive a control of pain, and also least disturbing to the digestive and other organic functions." He further states:

"The scientific physician prefers always to treat a cause or condition, rather than a mere symptom. If he can remove pain by abolishing its cause, he will do so, rather than to blunt the sensory structures so that the pain is not felt. The demand for relief from mere symptoms, however, frequently becomes imperative, and this is especially the case when pain is present. We would cease to respect the physician who, in the presence of an acute agonizing pain, which mechanical or other means could not quickly relieve, would withhold the hypodermic morphia. On the other hand, we applaud the sentiment which seeks for measures to combat these symptoms carrying with them less of the remote dangers which are inherent in the frequently-repeated and long-continued use of opiates."

CASEIN OF MILK.—Wroplewski has made (*Med. and Surg. Bull.*) researches into the comparative properties of casein in woman's and cow's milk. The casein is different in the two kinds of milk. In woman it contains less carbon, nitrogen, and phosphorus, but more hydrogen and sulphur. The solubility of the casein differs, and different chemical changes go on when cow's or woman's casein is submitted to gastric digestion.

A Clear Crystal Glass

PITCHER FREE



Capacity : One-Half Gallon.

Containing the equivalent of five boxes of Pepsin Tutti Frutti. It is also packed with an assortment of half Pepsin and half regular Tutti Frutti. Order early from your wholesaler. Send postal card for new advertising signs for your window.

Adams & Sons Co.,
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LIVE DRUGGISTS

—BUY AND SELL—

ADAMS' ROOT BEER



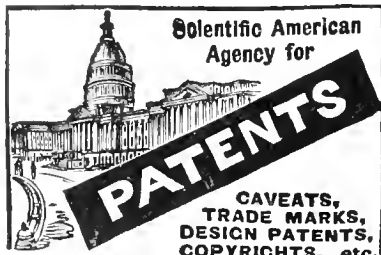
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"St. AUGUSTINE"

Registered at Ottawa.

Our "St. Augustine" (Registered) is the perfect wine for communion or invalids. Your wine merchant can supply you at \$4.50 a case, one dozen quarts. See that you get the genuine article. All good articles are counterfeited. See that our name is on label and capsule.

Our "St. Augustine" (Registered), of 1801 vintage, a choice sweet, mild wine, and equal to imported wines at double the price.

J. S. HAMILTON & CO.
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"OLD TIMES" AND "WHITE WHEAT"



For sale at Manufacturers' Prices by the leading whole sale druggists and druggists' sundrymen throughout Canada.

Complete Illustrated Price List free on Application

"SANITAS"

NATURE'S
GREAT DISINFECTANT.

Non-Poisonous.
Does not Stain Linen.

FLUID, OIL, POWDER, &c.

HOW TO DISINFECT A valuable Copy-right Book giving simple directions "How to Disinfect" in cases of the various Infectious Diseases, as also in every-day life, will be sent free on application. THE SANITAS CO., Limited, BETHNAL GREEN, LONDON, ENGLAND.

A pushing Agent wanted in each Canadian City.

HERE'S A SELLER

SPOONER'S
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DISINFECTANT, DEODORIZER, and GERMICIDE.

Genuine good article. No Liquid compares with it. Prevents contagious diseases, kills germs. Indispensable with people understanding sanitary requirements. Don't buy any other for safety's sake. All Druggists sell it. Holds Prof. Ellis' certificate.

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ALONZO W. SPOONER, Mfr., Port Hope, Ont.

... MOST WONDERFUL DISCOVERY OF THE AGE. ...

Excelsior Egg Preserver

It is no pickle; you simply treat the eggs with **Preserver**. After treating lay them away in a cool, dry place, in a box. The idea is to lay down a supply when eggs are cheap.

The **Preserver**, used according to our directions, will stop all decay of the animal matter of the shell, and, at the same time, seals every pore of the shell, which will keep the yolk in the centre of egg, where it is always found in fresh eggs, as the air cannot escape, nor can it work in, and we guarantee the egg to be as fresh in one year as the day it was treated. It costs less than one cent per dozen to lay them down, and a child can do it; it requires no skill. **Preserver** will be appreciated by all your customers.



FOR SALE BY ALL WHOLESALE DRUGGISTS.

Manufactured by

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P.O. Box 93,
HAMILTON, ONT.

EXCELSIOR MANUFACTURING CO.,

6344 CHAMPLAIN AVE.,
CHICAGO, ILL.

Legitimate but Neglected Side Lines for Druggists.

The *National Druggist* (St. Louis) in a recent number calls attention to a line of goods which, in many localities, might be handled with profit. It says:

An advertisement now running in the *National Druggist* and several other pharmaceutical journals contains a suggestion well worth consideration by the druggist, now anxiously seeking for legitimate and profitable articles that he may introduce as side lines to his trade. This advertisement reads:

"In England and Scotland all druggists handle 'tea,' and find it a profitable side line. This ought to be the case in the United States, and druggists can make it so if they will."

This statement affords a curious and, as far as we remember, an unique anomaly in the history of the drug trade. Tea—*Thea Chinensis*, in its various subdivisions (*T. viridis*, *T. bohea*, etc.)—was once an article of merchandise entirely in the hands of the druggist, but gradually, as it became of more and more importance, the grocers and spicers took it on, as a side line at first, but finally as a staple. The pharmacists of Europe never relinquished the trade in it, and still carry it, but as a side line only. If it ever was carried as a staple by American druggists, it was so long ago that we have no record of it, and now it is being offered to them, almost apologetically, as a profitable and legitimate side line.

Of course, our advertiser is not playing the philanthropist and paying for advertising space merely to give profitable advice to the druggists. He, naturally enough, wants them to purchase and handle his own particular brand of tea, but this does not make his suggestions any the less valuable and timely—for if there ever was a time when the retail trade needed advice in this direction, it is now. Arguments as to the legitimacy of tea as an article for the apothecary to handle is superfluous. Aside from the fact already mentioned, that it was once a staple with him and was taken away by the encroachments of the spicer and grocer, tea is an article of prime consumption with the ill, and especially with chronic invalids and convalescents. There is scarcely another substance of such universal application, since there are but few conditions of impaired health in which it is contraindicated, and its enormous consumption among those in perfect health is a matter too well known to require a mention. The fact of the matter, however, is that too much stress has hitherto been laid upon the "legitimacy" of this or that article offered as a "side line" for druggists. The time has come, and this article is written mainly to emphasize it, when the urgent necessities of the case demand that that "professional pride" which stands in the way, forbidding the druggist to handle articles, honest and proper in themselves, simply because they are not down in the *Pharmacopœia* or the lists of druggists' sundries, must be

put aside. That egotistic fallacy has had no small share in the druggist's undoing, and it must go, if the trade hopes to regain its former prosperity.

The druggist must put on his thinking cap, and go over the lists of things now handled by the grocer or by other lines of business, in which there is a profit, and if they are commercially suitable put "ethics" in the background, and boldly appropriate them. The grocer, the general storekeeper, and the department house have had no scruples in usurping his wares, and he should be equally bold and aggressive.

There has been enough appealing to wholesalers and proprietors: enough proposing of "plans" and "ideas," all perfect in theory, but impossible in practice; enough of groaning and complaining of the "inroads of the grocer and department stores on the rights of legitimate pharmacy": enough of appeals to special legislation—make an end of it all, and help yourselves. Every plan hitherto proposed has failed; every law made to benefit your condition has proved a boomerang and recoiled on yourselves, and, as for complaints and appeals, you have bitterly experienced their futility.

As a matter of fact, you have no more right to complain of the grocer who sells a bottle of patent medicine than the confectioner has to complain of your selling candies, or the tobacconist of your selling cigars. You have adopted these, and they have proven profitable, why stop at them? We by no means wish to see the apothecary shop turned into a "junk shop," nor is this necessary. But we believe that there are other and profitable but neglected opportunities for you. If professional pride stands in the way, so much the worse for you, for as the Scripture says, "Pride goeth before a fall."

Ontario Society of Retail Druggists.

FIRST ANNUAL MEETING.

At one o'clock at the Ontario College of Pharmacy, Toronto, on Wednesday, September 9th, 1896, the second week of the Toronto exhibition.

The officers expect that the druggists will turn out *en masse*, and that this will be a monster meeting. We hope that it will be the largest meeting of retail druggists ever held in the Dominion. Let everyone come. All are welcome. Each one ought to welcome the other. Every druggist should be glad to see every other druggist there. The officers do more work than private members, but each member should have as much interest in the success of the society as the officers. Show this interest by attending this meeting. Help us with your advice and counsel. We need it. This will be a very important meeting. Measures of great importance to every retail druggist and to the success of the society must be decided at this meeting. It is therefore desirable that we should have a large and representative attendance.

Mark September 9th, 1896, on your calendar as the day you intend to go to Toronto to the meeting of the Ontario Society of Retail Druggists. Let nothing else interfere with this date. Try to bring some other druggist with you. Take it up.

If this society is to be a complete and perfect success, every druggist must take an interest in it, and work for its success. The officers work and are willing to work, but their endeavors must be assisted by every retail druggist. To day our society is stronger than it ever was, and it can be made stronger by better organization, and by druggists getting in closer touch with each other, by getting acquainted with each other, understanding and sympathizing with each other's difficulties and successes. Success can only be attained by all druggists acting as one man when a particular line of action is decided upon, and such action on the part of every druggist can only be depended upon when perfect organization is obtained.

Come to the meeting. All the officers would like to see you. Personally, after having so much correspondence with different druggists during the past year, I would like to meet every one of you, and become acquainted with you face to face. All come and all help.

J. T. PEPPER,

Sec.-Treas.

Pharmaceutical Association.

The first meeting of the new council of the Pharmaceutical Association of the Province of Quebec was held in the Montreal College of Pharmacy, Wednesday, July 8th, all of the members being present. After the reading of the minutes of the previous council meeting and the report of the preliminary Board of Examiners upon the results of the recent examination, the president announced the meeting open to receive nominations for the various officers, when the following gentlemen were duly elected to fill their respective positions for the ensuing year, namely: President, R. W. Williams, of Three Rivers (re-elected); first vice-president, S. Lachance; second vice-president, R. McNichols; treasurer, C. J. Covernton; Board of Examiners, R. W. Williams, W. H. Chapman, J. R. Parkin, A. J. Laurence, Montreal; A. E. DuBerger, Waterloo; J. Emile Roy, Quebec; preliminary examiners, Prof. Isaac Gammell and Abbi Vernault, Montreal, with J. E. Dube, supervisor for Quebec; auditors, Charles Beaupre and J. E. Tremble; special delegates to the annual meeting of the Quebec Pharmaceutical Association, R. W. Williams, S. Lachance, R. McNichols, E. Muir, Montreal, and Dr. E. Morin, of Quebec; secretary registrar and assistant treasurer, E. Muir.

CUPRAIN. A copper albumen combination similar to terra in, prepared by Filehne, and described by him in the *Deutsche Med. Wochenschr.*

The Science of Optics.

BY LIONEL LAURANCE.

[Entered according to Act of Parliament of Canada, in the year 1896, by Lionel Laurance, at the Department of Agriculture.]

Emmetropia.

Rays of light entering the eye pass through :

- (1) The cornea ;
- (2) The aqueous humour—by the opening in the iris ;
- (3) The crystalline lens ;
- (4) The vitreous humour ;

and, reaching the retina, form there an inverted picture. From the retina communication is made to the brain, by the optic nerve, of the impingement of the rays, and the sensation of light is caused.

The cornea and the humours through which the rays pass form and are termed the dioptric or refractive media of the eye. The three factors which, in addition to the perfect transparency of the media and the nervous power of the retina and the optic nerve, are necessary for perfect binocular (single) vision are :

(1) Refraction. The bending of parallel rays of light so that they come to a sharp focus at the retina.

(2) Accommodation. The combined action of the ciliary and crystalline lens, by which the refraction of the eye is increased so as to bring divergent rays to a sharp focus at the retina.

(3) Convergence. The action of the motor muscles, by means of which the two visual axes are converged to the same point, so that the rays of light from the one object form an image on and around the macula in both eyes at the same time, and a single object is seen.

THE TEST CASE—TEST TYPE—TESTING AND RECORDING V.

A test case consists of a complete series of + and - sphincter lenses numbered from O.125 to 20D., + and - cylindrical lenses from the weakest up to 6 or 8D. Prisms from 1° to 20°, or 30°, and various discs and colored glasses. All these lenses and discs are conveniently mounted in rings with handles. The opaque disc is a black plate. The translucent disc is a piece of frosted glass. Both are used for covering one eye while the other is being tested. The former blocks out the light entirely, while the latter transmits a certain quantity without permitting vision of objects, and is, as a rule, preferable.

The stenopæic slits are plates of black rubber or metal, with a narrow opening running across them. They are used in astigmatism.

The pin-hole disc is a plate with a very small central aperture. It is used for determining the possibility of improving the sight with lenses.

The half opaque disc is used in connection with the testing of the field of V.

The red glass is used in connection with tests of the motor muscles.

The blue and smoke glasses are for those cases where diminished light is requisite.

The power and application of prisms will be found in the chapter devoted to that subject, and more complete explanation of the employment of the various discs will be met with in the descriptions of the several defects to which they are applicable.

For testing V the use is universal of a series of various sized letters based upon scientific measurements which are commonly called distance test cards. The largest letter is marked 200, the next is 120, and then 80, 60, 40, 30, 20. These numbers represent the distance at which the letters should be read in feet, and at which they can be read if the eyes be normal. The card was originally devised by Snellen according to the angle under which the smallest object is discernible. The angle formed by drawing lines from the extremities of these letters to the nodal point is exactly the same with each sized letter (as in Fig. 30). Therefore, if line No. 20 is legible at 20 feet, the line No. 200 must be visible at 200 feet, and *vice versa*. The letters are formed in square blocks of the proper size, according to distance, and each division or arm of any letter is just one-fifth of the whole. A great improvement on the original card is the addition of lines Nos. 15 and 10, legible respectively at 15 feet and 10 feet.

The smallest object visible to the average eye is one that subtends at the nodal point an angle of 5', the parts of the object being not less than one-fifth the size of the whole subtending an angle of 1'.

To test V, the customer must be comfortably seated, so that his face is 20 feet from the distant test card, which should be fixed on the wall, so that a good light falls on it, and avoiding, if possible, the light falling upon the face of the customer, let it come over his shoulder. Put on the trial frame and cover the eye nearer to you with the disc, and ask which is the smallest line legible, or make him read from the largest line to the smallest he can. When you know the extent of his visual power for the one eye, note it, and move the disc to the one further from you, and find out and record the vision of the other eye.

The visual acuteness is recorded in this way. If the person read the 20-foot line, his $V = \frac{20}{20}$; if he could not read that line, but only something larger, his $V = \frac{20}{40}$, or $\frac{20}{60}$ of whatever it might be. The numerator of the fraction is the distance at which the test is made, and the smallest line read is the denominator. This fraction is not reduced. Sometimes $V = \frac{20}{15}$, or even $\frac{20}{10}$, that is to say, that the visual acuteness is better than the average, this occurs usually with young people; but if

$V = \frac{20}{30}$ it is up to the average, and must be considered normal. In old people $V = \frac{20}{30}$, or $\frac{20}{40}$, must be taken as normal.

The letters O.D.—oculus dexter—are used for the right eye, and O.S.—oculus sinister—for the left eye ; so in a given case you would record

$$\begin{aligned} \text{O.D. } V &= \frac{20}{40} \\ \text{O.S. } V &= \frac{20}{60} \end{aligned}$$

When a line is very clearly seen it might be recorded also with a + sign, or, if only partly distinguishable, with a - sign. Thus, O.D. $V = +\frac{20}{20}$; O.S. $V = -\frac{20}{40}$.

If, as in the above, the one eye be found better than the other, test the better one first, but if both be about equal test the one nearer to you. Do not cover the one eye with your fingers or allow the customer to do so, as it influences the sight by the pressure on the globe ; use the translucent or opaque disc. If the sight be so defective that the card itself is not visible, let the customer approach until it can be seen and record the V as, say, $\frac{20}{60}$, he reading the 200-foot line only at 5 feet, but he must be returned to the 20 foot distance if his sight is by lenses to be made better to any reasonable extent. If V be very defective, instead of using the card let the patient count your fingers as far away as possible, say this be one foot, then his $V = \frac{1}{20}$, your fingers taking the place of the largest letter on the card. If he can only see movements of the hand, it might be so recorded, or only perception of light—P.L.—or V might be *nil*—that is absolute blindness.

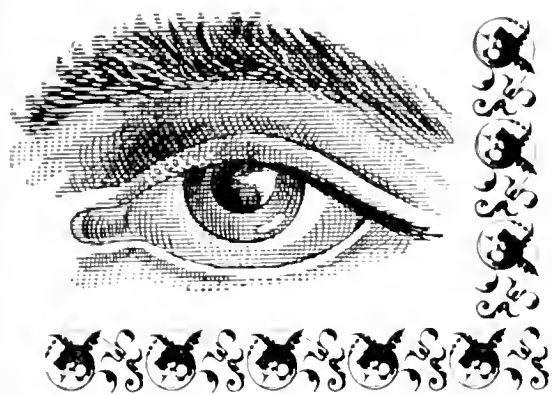
If the room or store cannot possibly permit of a 20-foot test, but, say, only 15 feet, then the V is recorded as $\frac{15}{15}$, or $\frac{15}{40}$, as the case might be. It is, however, very much better to make the test at 20 feet, as at that distance the rays of light from the test card are parallel.

Some test cards are marked in metres 60, 36, 24, 18, 12, 9, 6, 4.50, 3. As 6 metres are equivalent to 20 feet, then normal V is that of $\frac{6}{6}$. Scientifically, and for means of calculation, the metric system is the better one, but I shall use the inch system of measurement in this book, as I think the majority of people are so much more conversant with it.

The refraction of the eye, apart from the accommodation, is tested at 20 feet, because at this distance no accommodation is, or rather should be, exerted, and convergence also is at rest.

The accommodation is tested at the P.P., or, more generally, at the reading distance. This is, in the great majority of people, 16 inches, but a few short people might use a slightly closer point, and some tall people a rather further point. The natural distance of anyone is that found by placing the arms at right angles, the elbows being close to the sides. Of course, where there are visual defects a person might be using a shorter or a longer distance, but the right-angled arms form the natural distance.

The hand reading card is formed of variously sized type based on the principle similar to that of the distance card, that



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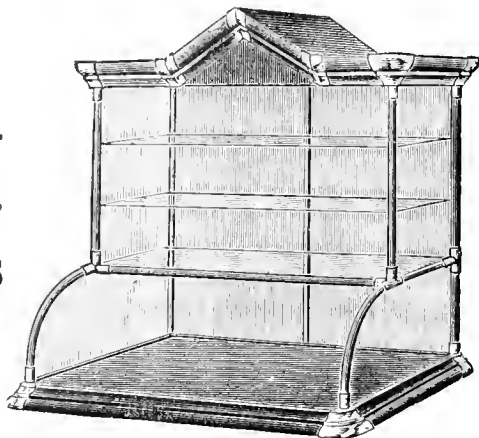
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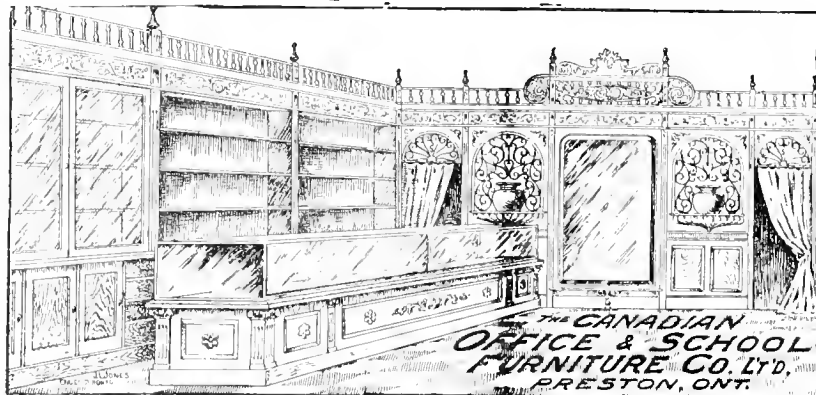


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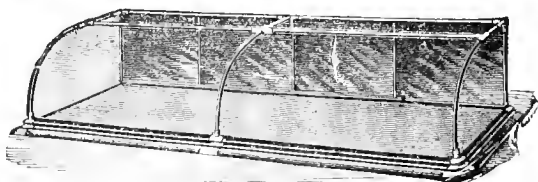
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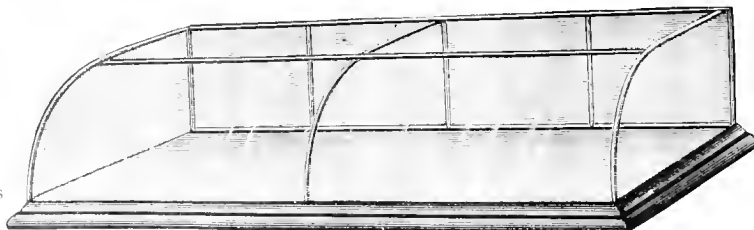
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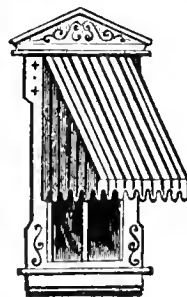
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Made by experienced workmen,
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Wm. Bartlett,
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is to say, that a certain type should be legible at a certain distance. More generally, however, instead of marking the distance they give approximately the number of the convex lens that is required if a certain line is the smallest that can be read, and this serves the purpose just as well. The lines are referred to as No. 1, No. 2, No. 3, etc., the smallest of all being No. 1. The type Nos. 1 to 9 on the hand card are in continuous graduation with the type Nos. 10 to 200 on the distance card.

When the distance test has been made, the near vision must be also tested by noting the nearest and furthest point of vision of the finest print on the reading card, both eyes being open. The V should be more comfortable at the natural reading distance than either further away or nearer.

The static refraction is that of the eye when at rest, that is not accommodated; it is, therefore, that of the refraction alone. The dynamic refraction is that of the accommodation when fully exerted. The two together constitute the maximum refraction.

Then the maximum refraction, less the static, is equal to the amplitude of accommodation.

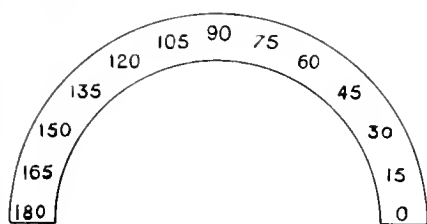


Fig. 31.

If the sight of an eye is $\frac{20}{20}$, V is normal, but it does not of necessity follow that the eye is emmetropic, because accommodation might be exerted sufficiently to bring parallel rays to a focus at the retina. If $V = \frac{20}{20}$ without accommodation being exerted, then that eye is normal; so emmetropia may also be defined as the condition of an eye in which $V = \frac{20}{20}$, with accommodation suspended.

All testing must be done systematically: that is the grand secret of success. This order of making the tests and the determining of the various defects of V and their correction will be found in the following chapters.

Any deviation from the condition of emmetropia must be ametropia and this can be divided into primary and secondary.

Under primary ametropia are included only the errors of refraction, viz.:

- H. Hyperopia, Far sight.
- M. Myopia, Near sight.
- As. Astigmatism, Mixed sight.

Anisometropia is the condition of refraction where that of the two eyes is different.

In correcting ametropia there are three things that are sought for by the competent optician, viz.:

- (1) To make V normal, or as nearly so as possible.

- (2) To bring the working point close to the natural distance.

- (3) To restore harmony between accommodation and convergence.

V not being normal, the question arises, firstly, as to whether the abnormality be due to defective opacity of the media, defective nerve power, or defective refraction. This point can be decided conclusively by means of the pin-hole disc, which should be used always if there be any difficulty in determining the defect, or if there be doubt as to whether it be correctable by lenses at all.

All rays of light passing through a lens or the eye are refracted except the axial ray, and the nearer any others are to the axis the less they are refracted, while those far from the axis are the most refracted. It follows that where there is an error of refraction the more refracted rays must be further from a focus on the retina than those less refracted. Now, if there be an error of refraction, and V be defective, an improvement in sight must be obtained, on looking at the distant test card through the pin-hole. Nearly all the very refracted rays are blocked out, and only the axial ray, and a few surrounding it, are permitted to pass into the eye.

The disc must be put close to the eye,

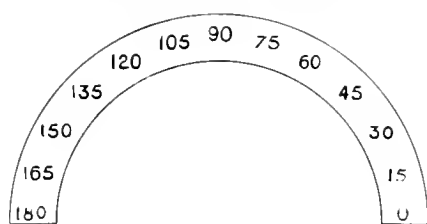


Fig. 31.

and used on one at a time. If V be better through the pin-hole disc than without, it is an error of refraction, and correctable by an optician. If the pin-hole shows no improvement it is certain that it is not an error of refraction, and it should, therefore, be immediately referred to an oculist or eye specialist.

This little instrument is very valuable in the hands of an optician, and it can be absolutely depended upon if properly used.

A proper testing frame should have carriers in each eye for at least three lenses, and it should be adjustable by means of ratchet work both for the P.D. (pupillary distance)—that is the distance between the two pupils—and for Ht. (height of the nose). It should also be adjustable at the sides and for the position of the nose-piece in and out. This adjustability brings the centres of the eye-pieces of the frame immediately in front of the pupils of the eyes and so into the best position for testing. If the trial frame be properly scaled, the measurements of the frame required can also be read off when making the prescription, although this is not the best method. (See chapter on frames.)

The frame is marked with the degrees from 0. to 180, as in Fig. 31.

O commences in both eyes on the left of the patient, that is to the right of the optician when facing the patient or when looking at the front of the frame. Ninety is the vertical meridian, 180 is the horizontal.

The front part of the eye pieces are generally made to revolve, and where the small scratch on a cylinder points to represents the meridian of the axis of that cylinder, this can be easily seen and noted.

A prescription form is as follows:

Mr.		Date.
Rx.	O.D.	O.S.
Sph.	Axis	Sph.
Cyl.	Base	Cyl.
Prism		Prism
P.D.		Dis. of temples
Ht.		Width nose top
Sides		Width nose base
Nose piece		Bridge in—out
Style of frame		For reading distance
Size of eye		
Remarks		

The particulars in the first column are always necessary; those in the second column only occasionally. More will be found concerning these matters in the chapter on frames.

Every optician should keep a record book with the above details, and, in addition, any particulars about the case, such as the visual acuteness before and after correction. The prescription form is what should be sent to the manufacturing optician or wholesale house with any order for special lenses, so that all requisite details be plainly given.

A sample sheet of an optician's ideal record book should contain:

- No. of record—Date.
- Name—Address.
- Age.
- V. of O.D. and O.S. before correction.
- “ “ “ after “ “
- (with spaces for at least 3 tests).
- The correction found.
- The prismatic aid (if required).
- The additional reading power (if required).
- What lenses are given.
- Particulars of frames.

Cod Liver Oil from the Pacific Ocean.

A Tacoma company is being organized for the purpose of preparing and marketing cod-liver oil. The developing cod fisheries of the North Pacific Ocean and Behring Sea are highly favorable to the manufacture of this by-product, while the absence of hake, haddock, cusk, and other inferior fish add to the advantages as compared with the North Atlantic cod fisheries.—*West Coast Trade*.

CHLOROBROM.—A mixture of equal parts of chloralamide and potassium bromide. Used as a hypnotic, especially in the treatment of the insane.

PANGADUINE.—Name proposed for the collective alkaloids of cod-liver oil. A crystalline solid, soluble in alcohol and in a mixture of water and glycerin.

Advertising.

Practical Hints on Advertising.

Copyrighted, 1896, by CHARLES AUSTIN BATES, New York. No. 33.

An advertisement that doesn't give information fails of its object. To make an idea plain it must be presented in the simplest possible form. That means merely what it says—the simplest possible form.

Sometimes this means a very simple statement, indeed, and sometimes a longer, more involved statement; but the idea of every writer, whether he is a writer of advertisements or a writer of essays, is to bring out his point as strongly and clearly as possible, so that people may understand what he is saying, and be convinced by it.

Language is not invented to play upon, but to convey ideas, and to facilitate intercourse between people. Different words give different shades of meaning, and naturally the man who knows the greatest number of words and uses them correctly, will be best able to convey his exact meaning.

The best language for any purpose whatever is that which is "terse, succinct, and to the point." Involved sentences are bad, whether their subject is soothing syrup or philosophy.

It doesn't make any difference how much cultivation a man has, or how much reading he has done, he will receive impressions and information much more quickly and forcibly from short, quick, clear sentences than he will from long, involved periods, containing unusually long words. We have all heard how very few words Shakespeare used in his writings, and I am inclined to believe that most of the great writers have used comparatively few words. Their writings have been simple, clear expressions of thought.

I do not know of any American writer who expresses himself with so much force and clearness as Ralph Waldo Emerson. His sentences are short. He makes use of few unusual words.

I am not a stickler for brevity in advertising. I do not believe in slurring over any point for the sake of being brief. I believe in telling my whole story plainly and completely.

In advocating crispness and clearness of expression, I do not advocate haste. On the other hand, time is precious, and there is no need of losing it, either in writing or reading advertisements.

There is enough hard work in the world without making hard work of our reading. There is no use in wrapping a small idea up in a great lot of words, just for the sake of making it hard to get at. If, in the same length of time, a man can receive

two ideas instead of one, he is certainly one idea ahead.

There are times when long sentences and big words are necessary, but these times are few and far between. When these things are necessary, use them by all means. When they are necessary, they are necessary, and that is all there is of it. I do not object to them when this is the case. I protest only when short words and short sentences will convey ideas more quickly, more forcibly, more convincingly.

Does anybody ever read or pay any attention to the books that are issued ostensibly to advertise cities or towns? They are usually very handsomely printed and illustrated. They generally contain some little statistical matter of value, but almost invariably the bulk of the book is made up of paid write-ups. These write-ups are charged up on the advertising account of the man who is puffed. Not only is his business written up, but a picture of his residence is inserted.

All he has to do is to pay about four prices for the half-tone plate, and to buy anywhere from ten to one hundred copies at a dollar apiece. Very few of these books are ever sold at less than a dollar. No charge is made for the write-up; that is put in free, but the publisher naturally expects that you will take a few copies of the book. The write-up man travels around from one city to another, generally makes a lot of money with comparative ease, and does a great deal to convince merchants generally that advertising does not pay.

Some of the shrewdest business men are caught on this scheme, and it really seems that no man is exempt. The write-up is generally full of gush, and tickles each man's vanity. It gives the number of feet of floor space in his store or factory, and tells all about his "beautiful home." Each man is a prominent citizen, and each man's business has been "marked with intelligent enterprise."

The manufacturer has always "built up and maintained a well-established reputation for the integrity of his product." A man may have a little 6x9 peanut stand, and still have his write-up fixed up in the most grandiloquent style.

The "prominent citizen," with a two hundred dollar investment in the town, may occupy five times as much space in the book as the million dollar manufacturer who doesn't come down with the cash. A man can have anything in these books that he is willing to pay for. And if he doesn't pay for something, he will get nothing, no matter how important he may be in the community.

Now, I am far from censuring anybody from going into schemes of this kind. If a man is willing to pay for having his vanity tickled, all right. If he is willing to pay one hundred dollars to read a lot

of flattery about himself and his business, it is his great North American privilege to do so.

The thing that I quarrel about is that he should pay this money for his own personal edification and charge it up to advertising. It is not advertising. It is amusement, and should be charged to the proper account. I should think it would be even more amusing to read this sort of thing in a daily paper than to have it in a handsomely-printed book that will never be seen. I can understand how a personal write up may be profitable in a newspaper, and may be properly charged to advertising.

I think that business men generally do not pay enough attention to holding the customers that they have already secured. Their energies are devoted to getting new people into the store all the time, and when that is accomplished they consider their advertising well ended.

It is just as necessary to advertise to a customer as it is to a prospective customer. As it is in life insurance, so it is in business generally. "Lapses" are a great drain on a business.

You spend considerable money in the effort to convince some one that your store is the best place possible for him to trade. After he comes, he is perhaps treated so that he feels that his trade is not so very desirable, after all.

If a business man could only hold all the trade that he gets, and occasionally add a little new trade, he would have all that he could desire. The trouble is that for every five customers he gains, he loses three or four. Of course, some of this loss is unavoidable. You can't please everybody.

An Appreciated Pharmacist.

At a recent special meeting of the trustees of the Detroit Art Museum, Messrs. Frederick Stearns and James E. Scripps were presented with elegant bronze medals in recognition of their valuable gifts and untiring efforts on behalf of the museum during the past twelve years. Mr. Stearns, during his presidency of the past year, has given a large amount of time as well as money to the work of the museum, and many of the valuable objects recently added to its collections have been presented by him.

Mr. Stearns has left for South America, as representing the interests of pharmacy in the delegation from the National Manufacturers' Association, which sailed from New York, July 1st. The delegation, which consists of thirty members, will visit the various South American republics, the trip occupying about two months.

ANTINOSIN.—Name given to the sodium salt of nosophen (tetraiodphenolphthalein). Soluble in water, producing a blue color.

THE BEST WAY TO SELL GOODS

Is by well-written, attractive advertising notices

I WRITE THEM**SAMPLES
FREE**

When sending for samples be sure to send full particulars of what you wish advertised

Advertising Pamphlets, Booklets, Circulars, Dodgers, etc. a specialty. Write for terms mentioning size of page and number of pages wanted

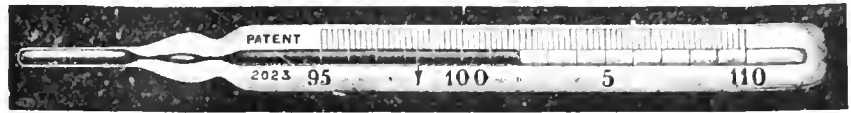
W. T. MURRAY,

24 Adelaide Street East, Toronto

Room 20, Equity Chambers

"THE LANCET," "BRITISH MEDICAL JOURNAL," and "THE OPTICIAN," strongly recommend

DENTONS' New Patent "Acme" Lens-Front Clinical Thermometer



STILL MORE EASY TO READ.
INDEX AND SCALE IN THE SAME PLANE.
WILL NOT ROLL.
INDELIBLE ENGRAVING

WHOLESALE ONLY AT

25a Hatton Garden, London, England.

**RETAIL
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CAN MAKE A GOOD
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Brock's Bird Seed

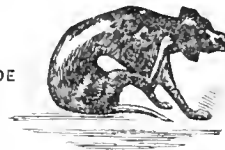
It is well advertised and put up in attractive 1 lb. packages. Each package contains cake of "BIRD TREAT" and piece of Cuttle Fish Bone.
Sold in 24 and 36 lb. cases by all Wholesalers, or

Nicholson & Brock,
Colborne Street, TORONTO.

The Harry Lewis **DOG SOAP**

Made from the
Original Recipe

TRADE



MARK.

Beautifully got up,
and a Good Seller

Whale Oil Soap

In 1lb. boxes, 1 doz. in Case;
In 20-lb. Pails and Barrels



For killing insects on
Rose Bushes, Plants, etc.

THE ALBERT TOILET SOAP CO.,
MONTREAL

Wine of the Extract of Cod Liver

Sold by all first-class
Chemists and Druggists

CHEVRIER

General Depot:—PARIS,
21, Faubourg Montmartre, 21

This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis, and all diseases of the Chest.

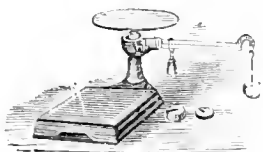
Wine of the Extract of Cod Liver with Creosote

General Depot:—PARIS,
21, Faubourg Montmartre, 21

CHEVRIER

Sold by all first-class
Chemists and Druggists

The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

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Buffalo, N.Y.

Formulary.

LIN. SAPONIS MOLLIS VEL TR. SAPONIS VIRIDIS.

Linseed oil.....	325 grammes.
Caustic potash.....	75 "
Oil of lavender.....	20 c.c.
Rectified spirit.....	300 "
Water, a sufficient quantity to make 1000	"

Dissolve the potash in 200 c.c. of water; put the solution in a bottle of about 1,500 c.c. capacity, together with the linseed oil and the spirit, and shake the mixture briskly from time to time, until there is no further separation of oil on standing. Let the solution stand in a moderately warm place for twenty-four hours, then dissolve in it the oil of lavender by agitation, and add enough water to make the product measure 1,000 c.c. Mix and filter.—*American Journal of Pharmacy.*

BALSAM OF HONEY.

Balsam tolu.....	2 lbs.
Honey, strained.....	2 lbs.
Oil anise.....	4 drachms.
Alcohol.....	1 gallon
Red saunders, sufficient to color.	

M. Dose: A teaspoonful three or four times a day, or when the cough is troublesome.

TOOTHACHE ESSENCE.

R Ac. tannic.....	4 drams.
Ac. carbol. cryst.....	2 "
Ol. caryoph.....	
Eth. meth.....	
Tr. pyrethri.....	aa 4 "

M.

A few drops to be applied to the tooth on cotton wool.

A NEW AND EFFECTIVE LAXATIVE.

Rhubarb.....	1 ounce.
Sodium sulphate anhydrous ..	1/2 "
Sodium bicarb ..	4 sc.
Ess. peppermint.....	10 drops.

Dose: A teaspoonful in a glass of water on going to bed.

TALCUM DUSTING POWDER.

Finely powdered boric acid...	25 parts.
Corn starch.....	50 "
Powdered talcum.....	444 "
Oil of rose geranium.....	1 "

—*Mod. Med.*

REMEDIES FOR SWEATING FEET AND HANDS.

Heuser, in the *Deutsch. Med. Wochenschr.*, gives the following formulæ against hyperidrosis, or profuse sweating, either of the hands or feet, or of other portions of the body:

Eckstein's remedy is a 5 per cent. solution of chromic acid in water, to be painted over the parts once or twice daily according to profuseness, rebelliousness, etc., of the secretion.

Hellwig's is a 30 per cent. aqueous solution of tartaric acid, used in the same way.

Noßke's is borosalicylic ether, 10 parts; ethyl chloride, 5 parts; rose spirit, 85

parts. It is prepared by passing chlorine through alcohol, interrupting the current of gas before the ethylic chloride is converted into chloral, and the addition of boric and salicylic acids, probably dissolved in water.

CONSILIIUM.

R Ol. eucalypti glob.....	m xv.
Spir. camphor.....	1 1/2 oz.
Tinct. guaiac.....	3 1/2 "
Glycerin, ad.....	1 "

Sig. Ten drops on sugar, to dissolve in the mouth every hour or two.—*Bulletin of Pharmacy.*

A NEW HAIR DYE.

The *Rundschau* (Prag) gives the following, which it is claimed, is entirely free from the dangers present in dyes containing lead, silver, etc.:

1. Bismuth citrate.....	50 parts.
Alcohol.....	33 parts.
Rose water.....	200 parts.
Distilled water.....	300 parts.

Mix the liquids and add the bismuth salt, adding carefully sufficient ammonia water to dissolve the latter.

2. Dissolve 60 parts of sodium hypophosphite in 200 parts of distilled water.

To use: At night, before retiring, wash the scalp with soap and water, thus freeing the hair of grease. Rinse to remove traces of soap. In the morning wet the hair with the bismuth acetate solution, and let it dry on during the day, and at night, before retiring, apply the sodium hypophosphite solution. If a deeper tint is required, repeat the operation.—*National Druggist.*

HAIR TONIC.

Tincture cantharides.....	fl.dr. 3
Tincture cinchona.....	" 4
Aromatic spirit ammonia.....	" 2
Glycerin.....	fl.oz. 1
Alcohol.....	" 4
Water.....	" 12
Cologne water.....	fl.dr. 4

Mix, and shake occasionally for two or three hours; allow to stand for twenty-four hours, then filter.

WINE OF IRON AND QUASSIA.

Le Monde Pharmaceutique suggests a formula for a bitter wine of iron under the name of *Vin de Quassia Ferrugineux* (ferruginous wine of quassia) as follows:

Tincture of quassia.....	30 parts.
Pyrophosphate of iron and sodium.....	5 parts.
Malaga wine.....	1000 parts.

Mix. Tablespoonful before each principal meal.

DELSOL'S FURNITURE POLISH.

The following is given in the *Dragisten Zeitung*:

Sodium carbonate.....	100 parts.
White wax.....	200 parts.
Alcohol.....	50 parts.
Water enough to make.....	3000 parts.

Dissolve the sodium carbonate in 1,500 parts of the water, and bring to a boil. When boiling, add the wax, broken into small bits, and continue the heat until solution is complete. Let cool down somewhat, under constant stirring, and then add, little by little, the rest of the water, and finally the alcohol. Any desired color may be given by using an aniline or any transparent color.

Perfumed Papers.

PAPIER D'ARMENIE.

This paper is made in the following manner: An unsized paper, such as filtering paper, is plunged into a cold saturated solution of saltpetre, and hung on cords to dry. It is then perfumed by dipping in an alcoholic solution of balms and essences, which may be varied as desired. The following are two examples:

I.

Alcohol.....	300
Musk.....	10
Oil of Rose.....	1
Benzoin.....	100
Myrrh.....	12
Orris.....	250

II.

Alcohol.....	200
Benzoin.....	80
Balsam of Tolu.....	20
Storax.....	20
Sandal Wood.....	20
Myrrh.....	10
Cascarilla.....	20
Musk.....	1

PAPIER D'ORIENT.

This is used to perfume rooms, and is treated in similar manner to the foregoing, with one or other of the following:

I.

Oil of cloves.....	30
" cinnamon.....	30
" bergamot.....	48
" lavender.....	48
Tincture of benzoin.....	420

II.

Balsam of Peru.....	15
Oil of cloves.....	30
" bergamot.....	30
Acetic ether.....	30
Tincture of musk.....	6
" vanilla.....	60
" benzoin.....	160
" cedar wood.....	30

PAPIER RUSSE.

This paper had a large sale at the recent Franco-Russian fêtes, and is treated with the following mixture:

Tincture of benzoin.....	250
" musk.....	10
" cloves.....	5
" lavender.....	5
" rose.....	5
" geranium.....	10
" violet.....	5

PAPIER ANGLAIS.

This paper is treated first of all with a solution containing 100 to 150 grams of saltpetre to each litre of warm water. On drying it is dipped in the following:

Benzoin.....	150
Sandal wood.....	100
Incense.....	100
Oil of vitivert.....	50
Alcohol.....	1 litre

FUMIGATING PAPER, OR RIBBON OF BRUGES.

This consists of bands of paper impregnated with substances that disengage a strong aroma when heated. To prepare it, the strips of paper are dipped in a hot solution containing 100 grams of alum per litre, and afterwards in this mixture:

Benzoin.....	200
Balsam of Tolu.....	200
Extract of Tonkin bean.....	200
“ vitivert.....	200
Alcohol.....	500

This paper, when heated, gives rise to a very agreeable odor. It will not burn, but is easily carbonized by a strong heat.—*R. de Chin. Industrielle. (The Soapmaker and Perfumer.)*

Photographic Notes

HINTS FOR AMATEUR PHOTOGRAPHERS.

—To prevent chemicals from running down the side of the bottle when pouring, coat the rim of the bottle with paraffine wax by dipping the mouth of the bottle in the melted wax.

All trays must be washed after using. The decomposition of chemicals in an unwashed tray will often spoil fresh solutions if put into the tray. Never leave solutions standing in trays; when through using turn the solution into a glass bottle. When not in use trays should be turned upside down on a shelf or table.

Developing solutions should be filtered between each using. Bits of film often come off the plate and if left in the developer will settle on the plate and cause a spot on the negative. The better way is to filter a solution after using and before returning to the bottle.

To ensure perfectly clear negatives always use clean hypo. Hypo which has been used several times becomes a dark muddy color, and is apt to stain the negative. Hypo is so cheap that one can afford to use fresh, and run no risk of spoiling negatives.

In placing plates in the holders, instead of using a brush for dusting, take a piece of surgeon's cotton, roll it into a soft ball, and rub lightly over the plate. This will remove the specks of dust, and will not scratch the plate.

It often happens when travelling that a dark room is not always to be found in which to change plates in the holders. The provident amateur carries a candle with him, and when no dark room is convenient he lights the candle, sets it under a table, and changes the plates on the table. This can be done with perfect safety if care is taken that no reflected light strikes the plates. The plates being in the shadow, and the light from the candle being rather dim, the plates are not injured any more than by a red light.—*From Harper's Round Table.*

CLEARING SOLUTION.—To remove yellow stains caused by developer:

Sulphate of iron.....	3 ozs. or 90 gms.
Sulphuric acid.....	1 oz. or 30 c.c.
Alum.....	1 oz. or 30 gms.
Water.....	20 ozs. or 600 c.c.

First wash well to remove all hypo from the negative, then immerse in the above solution until the stain is removed; again wash well and dry.—*American Journal Photography.*

GLAZING GELATINE PRINTS.—Many amateurs are troubled by having their prints adhere very firmly to the glasses to which they have been squeegeed for glossing. In some cases this is caused by putting them on the side of the glass which was not prepared for them. To remedy this, paint a large B with Brunswick black on the back of the glass. This will ensure the same side always being used. Pieces of paper put on for this purpose are often washed off. To clean the glasses thoroughly, take a few drops of solution made by dissolving 30 grains spermaceti wax in five ounces of benzene, and rub it all over the glass with a piece of paper until the surface is polished. Repeat this every time the glass is used.—*Photo. News.*

THE KOENIGEN RAYS IN PHARMACY.—Dr. Ferdinand Ranwez has made use of the “X” rays to detect mineral substances added to saffron as adulterants. Out of four specimens so examined, only one was found to be pure; another contained 62.13 per cent. of barium sulphate, and a third 11.75 per cent. of that compound, together with a certain proportion of potassium nitrate. The fourth specimen contained 50 per cent. of pure saffron, and the rest consisted of some substitute for that drug, faced with barium sulphate to the extent of 28.6 per cent. The plan adopted was to wrap a gelatino-bromide plate in black paper, place the saffron upon this on the same side as the sensitive film, then allow the rays to act for four minutes, afterwards developing and fixing in the usual manner. The foreign matter is very sharply indicated in the print illustrating the paper, which appears in the *Annales de Pharmacie* for May.—*Pharmaceutical Journal.*

HYPO BATHS IN WARM WEATHER.

In warm weather the hypo bath is apt to be troublesome. It rapidly evaporates, changes color, and stains the negatives, and often acts deleteriously on the gelatine film. I add to my bath chrome alum and acid sulphite of soda. The bath now not only remains quite clear and clean, but clears and hardens the negative, making washing easier, in that the tendency to frill is minimized. The bath may be kept for several weeks; indeed, it may be used until it changes from a bright green color to a brownish tint. Of course, in very warm weather the bath should be kept cold by standing the tray containing it in a pan of ice-water an

hour or so before development is commenced. The bath I prefer is made up as follows:

Hypo.....	4 ozs.
Chrome alum.....	1 1/4 oz.
Acid sulphite of soda.....	1 1/2 oz.
Water.....	1 qt.

Dissolve the hypo, add the chrome alum, then filter and add the sulphite. Evaporation of the bath is prevented by keeping the dish covered when not in use.—*Helping Hints.*

SNAP-SHOT DEVELOPMENT.—

No. 1.

Pyro.....	55 grains.
Metol.....	45 “
Potash metabisulph.....	120 “
Potash bromide.....	15 “
Distilled water to.....	20 ounces.

No. 2.

Washing soda.....	4 ounces.
Distilled water to.....	20 “

Mix in equal parts. In this way the image should appear in from 30 to 40 seconds, and development be complete in from 4 1/2 to 6 minutes.—*Canadian Photographic Journal.*

British Columbia Pharmaceutical Association.

ANNUAL MEETING, 1896-7.

The Association convened in the Board of Trade rooms, New Westminster, B.C., at 8.30 p.m., and was called to order by Vice-President Atkins, the following being present:

Vice-president, T. E. Atkins; councilors, Messrs. Thos. Shotbolt, J. R. Seymour, T. A. Muir, E. McG. Van Houten; registrar, C. Nelson; and Messrs. H. McDowell, John Reed, J. M. Atkins, W. A. Griffiths, D. S. Curtis, H. Ryall, and J. K. Sutherland, members of the association. Mr. Wright, of Montreal, and Mr. Tepoorten, of Vancouver, by request, joined the meeting.

The minutes of the last annual meeting were read and adopted.

The secretary read the

ANNUAL REPORT OF THE COUNCIL, YEAR 1895-6.

To the Members of the British Columbia Pharmaceutical Association:

GENTLEMEN,—Your Council met directly after their election, in the Manor House, Vancouver, on the evening of June 13th, 1895, and elected the following officers for the ensuing year: President, T. M. Henderson; vice-president, T. E. Atkins; secretary-treasurer-registrar, Chas. Nelson.

The Board of Examiners was appointed by the Lieutenant Governor in Council.

Your council directed that \$400 of the surplus be placed out at interest, which has been done.

On Sept. 19th your council met in Victoria and considered many points vital to the interests of the association and its



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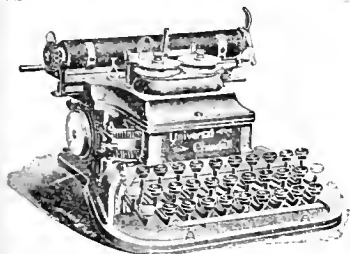
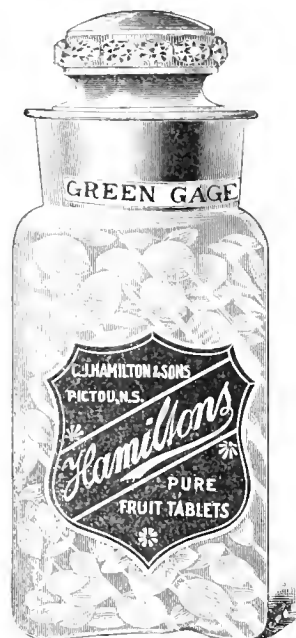
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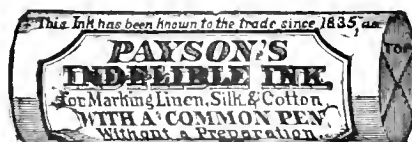
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- Gray's Anodyne Liniment
- Dr. Wilson's Antibilious Pills
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- Dr. Wilson's Itch Ointment
- Dr. Wilson's Sarsaparillian Elixir
- French Magnetic Oil
- Dr. Wilson's Worm Lozenges
- Dr. Wilson's Pulmonary Cherry Balsam
- Dr. Wilson's Cramp and Pain Reliever
- Dr. Wilson's Dead Shot Worm Sticks
- Nurse Wilson's Soothing Syrup
- Clark Derby's Condition Powders
- Wright's Vermifuge
- Robert's Eye Water
- Hurd's Hair Vitalizer
- Dr. Howard's Quinine Wine
- Dr. Howard's Beef, Iron and Wine
- Stroog's Summer Cure
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Kindly make sure the ARECA NUT TOOTH PASTE offered you is made in WINNIPEG. The genuine is for sale by

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Kerry, Watson & Co., Montreal.
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J. A. Kennedy & Co., London, and by

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An excellent antiseptic tooth wash.

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Read the strongest endorsement ever given any remedy, and if you are not fully satisfied write for leaflet containing over 6,000 testimonials.

UNITED STATES HEALTH REPORTS (Official Endorsement June 19, 1895, page 10.)

"In the interest of the masses for whom these Reports are compiled, the United States Health Reports have examined and investigated many preparations having for their object the cure of the tobacco habit, but among them all we have no hesitancy in giving the editorial and official endorsement of these Reports to the remedy known as **Uncle Sam's Tobacco Cure**, manufactured by the Keystone Remedy Co., at 217 LaSalle Street, Chicago. We have demonstrated by personal tests that this antidote positively destroys the taste and desire for tobacco in ten days, leaving the system in a perfectly healthy condition, and the person using the same forever free from the habit.

"In the light of our examinations and tests of **Uncle Sam's Tobacco Cure**, we are but performing a duty we owe the public when we endorse the same, and stamp it as the crowning achievement of the nineteenth century in the way of destroying a habit as disgusting as it is common (for only \$1.00), hence we earnestly advise you to write them for particulars."

For Sale by all Wholesale Druggists

members. The report of the Board of Examiners was read at this meeting.

The next meeting was held at Nanaimo on Dec. 13th. Numerous communications received by the secretary were read, and several applications for privileges contrary to the provisions of the Pharmacy Act were declined.

Your Board had directed the solicitors of the association to procure evidence as to the manner in which the provisions of the poison clauses were being carried out by the druggists of the province. The detective employed reported in person at this meeting, and his report showed gross negligence on the part of a few, and carelessness on the part of many, in not following the minor details. Your council hope that a hint to the wise will be sufficient. The solicitors were instructed to prosecute any violators of the Act.

Your council next met in Vancouver on March 12th, all the members being present. The solicitors reported having prosecuted one J. A. McAlpine, a registered druggist, for employing an unqualified man; and also one Lapsley (the unqualified person referred to) for selling poisons; judgment being gained in both cases.

A letter from the Retail Druggists' Association was received at this meeting, and your council passed a resolution strongly sympathizing with the movement.

The next meeting was held this day at New Westminster. Some ninety communications received by the registrar were considered and his replies endorsed.

The registrar notified the council at this meeting of his decision not to accept reappointment.

C. NELSON,
Registrar.

REGISTRAR'S REPORT.

To the Officers and Members of the British Columbia Pharmaceutical Association:

GENTLEMEN,—The report which I have the pleasure of laying before you tonight is in many ways gratifying. The progress we have made shows itself by the increased register and the better feeling of the members as a whole. We cannot say any improvement has been made in the payment of dues, as last year every member of the association had paid up by May 31st. This year several members have neglected to do so, and, I presume, will have to pay the fine before being again placed on the register.

Some fifty members have this year used the ballot, a small decrease on last year. Out of twenty-four members nominated, all but six declined the nomination, some for very good reasons, but many for no other reason than that they decline to give the time to the work.

The total number of licentiates on the register is 71: of these 53 are in business for themselves, and 18 employed as clerks, as follows: Victoria, 19 in business, 11 as clerks; Vancouver, 16 in business, 4 as clerks; New Westminster,

5 in business; Nanaimo, five in business, 1 as clerk; Kamloops, 2 in business; Nelson, 3 in business; Wellington, 2 in business; Kaslo, 1 in business; Vernon, 2 in business.

There are 24 apprentices: Victoria, 5; Vancouver, 8; Nanaimo, 4; New Westminster, 3; Vernon, 1; Kamloops, 1; Kaslo, 1; Nelson, 1.

The examinations, held on the 3rd and 4th of this month, will probably advance some of these to certified clerks, there being four apprentices trying for the minor and one for the major; three candidates are trying for the preliminary.

In retiring from active work in this association, it is not from any feeling of indifference, as I always have had and hope still to feel great interest in the advancement of our pharmaceutical profession and standing, and I hope my successor will receive the unanimous support of the members.

I cannot conclude without here thanking the members of the council and the members of the association at large for the assistance and good-will they have given and shown, in the past three years.

I hope that our association will prosper, not only financially, but to that professional advancement we have been striving to attain.

CHARLES NELSON, registrar.

TREASURER'S ANNUAL STATEMENT FOR CURRENT YEAR, ENDING MAY 31ST, 1896.

Cash Received.

June 1, 1895.	
Balance in hand, Bank of B.C.	\$59 03
To cash, fees annual to March 15,	\$78 00
" " examination " "	70 00
" " poison books " "	2 00
" " fees annual, 1895 6 " "	434 00
	\$584 00
	\$1443 63

Cash Disbursed.

June 1, 1895	
By Cash, expenses—council meetings	184 50
" Examinations " "	45 00
" Advertising " "	12 00
" Law " "	5 00
" Detective work " "	27 50
" Printing " "	55 75
" B. C. Gazette " "	52 50
" Postages " "	5 00
" P. O. boxes " "	4 00
" Fees returned " "	2 00
" Registrar " "	112 50
" Deposit on interest Bank of B.C. " "	400 00
" Banquet annual meeting " "	50 00
	955 75
Cash balance, " "	\$487 88
Savings Bank, \$400.00	

AUDITOR'S REPORT.

On being called, there was no report from the appointed auditors. The meeting then appointed Messrs. H. McDowell and D. S. Curtis auditors, and adjourned to give them time to examine the books and report.

On resuming, the auditors reported having examined books and accounts and found all correct.

PRESIDENT'S ADDRESS.

In the absence of President Henderson, his address was then read by Vice President Atkins.

I, the member of the British Columbia Pharmaceutical Association.

GENTLEMEN,—As has been customary in the past, it becomes my duty as president of this association to address you at the close of another year in its existence.

The registrar, in his report, will, no doubt, give you a faithful account of the duties performed by your council during the year now at its close. This leaves me only a few general points to touch upon. I may say here that this address should, to a great extent, be taken part in by your vice president, Mr. T. E. Atkins, upon whom many of the duties have devolved, he having been more favorably situated to the registrar, and I would here bear testimony to the faithful manner in which he has fulfilled these duties. Your council have had many perplexing questions to consider and decide, and while their decisions have not been well-pleasing to all concerned, yet they have endeavored to faithfully carry out the provisions of the Act.

Let the members of this association not forget that the council is elected by them to look after the interests of the association, as a whole, and, in doing this, should some individual member suffer it is for the general good. I trust that any friction thus caused will cease to be remembered.

As one who from the inception of the B.C.P.A., has done his little best to forward the interests of the druggists of British Columbia, you will bear with me when I ask you not to forget that the Pharmacy Act is yours, not the council's, and that it was obtained after many a hard battle: therefore, instead of putting obstacles in the path of the men you from year to year elect to this board, to look after your interests, let me urge that you give them all the assistance and encouragement you can in the performance of the duties thus assigned to them.

A word as to cutting. Unfortunately, some of our members have thought it to their advantage to engage in this species of—I was about to say warfare—but can only call it folly. Able men have written volumes on this subject, and I will leave it with them, only urging that those of our number who have thus broken from the ranks repent and be forgiven.

You will see from the registrar's report that a test was made of the poison clause of the Act, with results not by any means flattering to the association, but we trust that good results will follow.

We regret that there are not more of our young apprentices presenting themselves for examination. Feeling that this may to some extent be due to a lack of facilities for study, such as are afforded students in the older provinces of the Dominion, your council are taking steps to have a course of lectures delivered in Victoria, in connection with the Bureau of Mines, and also in Vancouver. We trust that the incoming council will find themselves in a position to inaugurate these lectures in the fall of this year.

Death has during the past few months robbed us of one of our members, in the person of the late Hon. A. J. Langley. While he was unable, on account of his advanced age, to take an active part in the affairs of the association, yet, as one long associated with him, I can bear testimony to the interest he took in the welfare of his confreres in the drug business. Coming to the province in the early days, one of, if not the pioneer druggist, he has left us a worthy example of the virtue of strict attention to business and straightforward dealings with all with whom he came in contact.

Let me congratulate the druggists of this province on the noble heritage we have in this great and growing part of our Dominion. We have a future before us, and opportunities such as are not often granted. Since the formation of this association in 1891, only five years ago, our province has developed in a wonderful manner, and yet we are only on the threshold of its development, and with the prosperity of this province goes hand-in-hand the prosperity of the druggists. Let us be worthy of our great opportunities, and bring credit to ourselves and to our country.

Believing that the time has come when others should share in guiding the affairs of the association, let me in, retiring from active service, wish you, one and all, continued health, wealth, and prosperity.

T. M. HENDERSON,
President.

Mr. Seymour moved, and Mr. J. M. Atkins seconded, a hearty vote of thanks to the president, which, on being put by the vice-president, was carried unanimously.

Messrs. J. A. Wright and J. A. Te-poorten were then appointed scrutineers of the election, and the sealed ballots were then placed in their hands, which, on examination and count, proved that Messrs. T. E. Atkins, E. H. Hiscocks, and R. G. Macpherson were the elect of the large majority of the members.

It was then moved by Mr. Seymour, seconded by Mr. Ryall, that Messrs. John Reed and W. A. Griffiths be appointed auditors. Carried.

Mr. Thomas Shotbolt then moved the following resolution. Resolved, that we deeply regret the loss sustained by the druggists of this association in the death of the Hon. A. J. Langley, who was the pioneer druggist of the province. This was seconded by Mr. Seymour and carried.

Mr. Seymour spoke referring to the last resolution, and it was agreed to have a copy of the same drafted by the registrar and sent to the family.

Mr. Seymour then referred to the work done by the B.C.R.D.A., explaining its inception. Several of the letters received were read by Mr. Sutherland, all of which were favorable to the object of the association.

Nothing further transpiring, the meet-

ing adjourned to meet in Victoria, in June, 1897.

OFFICERS AND COUNCIL FOR 1896-7.

Officers.—President, T. E. Atkins, Vancouver; vice-president, E. McG. Van Houten, Nanaimo; sec.-treas.-registrar, John K. Sutherland, Vancouver.

Council.—Thos. Shotbolt, E. H. Hiscocks, Victoria; E. McG. Van Houten, Nanaimo; J. R. Seymour, T. E. Atkins, Vancouver; R. G. Macpherson, Kamloops.

Examiners for licentiate of pharmacy examination.—John Cochrane, Victoria; T. A. Muir, New Westminster; H. H. Watson, Vancouver.

A Curious and Interesting Experiment.

Fold a piece of strong brown paper once, either longitudinally or through the shortest dimension, and hold it over a lamp or before a fire until it begins to smoke. Now put it on the carpet or on any woolen stuff and rub it gently with a bit of silk velvet, or even flannel, and it will be found to be in a state of strong electrical excitement, emitting a strong spark. If held close to the head it will make the hair stand on end. Now make a little ball of dry elder pith, or, in its absence, of dry, smooth, velvety cork, and drop it on the paper, the latter being held horizontally in the air by two persons. Now attempt to pick up the ball, and you will find that it seems to be endowed with life and intelligence, as it will dart away from the approaching fingers in the most curious manner. This experiment is capable of many interesting variations.—*National Druggist.*

Method of Distinguishing Guaiacol from Wood Tar Creosote.

M. Vreven proposes the following method: Put a drop of the suspected liquid into a test-tube, add two or three drops of ether, a drop or two of concentrated nitric acid, and as much of concentrated hydrochloric acid, and agitate. A reddish brown coloration first appears, especially on the ethereal layer. With the spontaneous evaporation of the latter it creosote be present oily drops appear, but if the substance be guaiacol crystals will make their appearance. Sometimes the latter fail to form when the tube is kept very still, but it suffices merely to give the tube a shake to produce them. Carboic acid, under similar circumstances, also yields crystals, but they do not resemble those of guaiacol in the least. These latter are composed of minute needles, grouped together in the shape of stars, which may be very easily differentiated from almost any others under the microscope. *National Druggist.*

WANTED, FIRST-CLASS DRUG STOCK IN good town. State best terms, and whether there is any opposition. Address H. N. W., Box 221, PRESTON, ONT.

WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc., will be inserted once free of charge. Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.

SITUATIONS WANTED.

SITUATION WANTED AS MANAGER OR ASSISTANT by metallist of O. C. P. Good experience in city and town. Best of references. Address Box 238, WATFORD, ONT.

SITUATION WANTED BY DRUG CLERK. About September 1st. Three years' experience. Telegraph operator. References as to character and competency as clerk furnished. "Drug Clerk," Drawer 33, HANOVER, ONT.

SITUATION WANTED BY AN APPRENTICE. With two years' experience in country and city. Good dispenser. Address "Drug Clerk," 108 D'Arcy street, TORONTO.

SITUATION AS ASSISTANT OR MANAGER BY young man with five years' experience; good dispenser; first-class references; graduate of O.C.P. Taken Phm. B. Diploma of Toronto University; also sound operator. Address, A. P. McK., Box 175, Watford.

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A WELL-ESTABLISHED AND PAYING DRUG business in N.W. Territories, the only one in the town and having other sources of revenue in connection with it. Stock small and in good condition. Also dwelling above, nicely decorated and in good order. The business and property must be sold together. Good reasons for selling. Address, in first instance, Box 46, CANADIAN DRUGGIST.

Drug Business

Carried on by G. S. Hobart & Sons, stock about \$10,000, will be sold at a sacrifice. Finest location in the city of Kingston. Apply at once to

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KINGSTON, Vendor's Solicitor.

We are offering in lots to
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Blue Vitriol Xtal,
Blue Vitriol Granulated,
Powdered Hellebore,
Carbonate of Copper,
Insect Powder,
Copperas,
Moth Camphor - Balls,
Blocks, or Powder,
Paris Green,
Sulphur Sublimed,
Sulphur Roll,
Alum Xtal,
Alum Powdered.

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Up-to-date Ideas in Perfumes Pay

SEND IN YOUR ORDER. EASILY SOLD.
SATISFACTION GUARANTEED.

One Oz. Glass Str. Bottle, 2 in Box, \$4.80
" " Screw Top " 1 " " 5.00
Two " " " 1 " " 8.00

NOT SOLD IN BULK

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Seely Manufacturing Co.

DETROIT, MICH.

WINDSOR, ONT.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to August 10th, 1896.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal.....	\$4 37	\$4 65
Methyl.....	1 90	2 00
ALLSPICE, lb.....	13	15
Powdered, lb.....	15	17
ALON, oz.....	40	45
ANODYNE, Hoffman's bot., lbs.....	50	55
ARROWROOT, Bermuda, lb.....	50	55
St. Vincent, lb.....	15	18
BAL. AM, Fir, lb.....	40	45
Copaiba, lb.....	65	75
Peru, lb.....	3 75	4 00
Tolu, can or less, lb.....	95	1 00
BARK, Barberry, lb.....	22	25
Bayberry, lb.....	15	18
Buckthorn, lb.....	15	17
Canella, lb.....	15	17
Cascara, Sagrada.....	25	30
Cascarilla, select, lb.....	18	20
Cassia, in mats, lb.....	18	20
Cinchona, red, lb.....	60	65
Powdered, lb.....	65	70
Yellow, lb.....	35	40
Pale, lb.....	40	45
Elm, selected, lb.....	18	20
Ground, lb.....	17	20
Powdered, lb.....	20	28
Hemlock, crushed, lb.....	18	20
Oak, white, crushed lb.....	15	17
Orange peel, bitter, lb.....	15	16
Prickly ash, lb.....	35	40
Sassafras, lb.....	15	16
Soap (quillaya), lb.....	13	15
Wild cherry, lb.....	13	15
BLANS, Calabat, lb.....	45	50
Tonka, lb.....	1 50	2 75
Vanilla, lb.....	8 50	9 00
BERBIES, Cube, sifted, lb.....	30	35
powdered, lb.....	35	40
Juniper, lb.....	7	10
Ground, lb.....	12	14
Prickly ash, lb.....	40	45
BUDS, Balm of Gilead, lb.....	55	60
Cassia, lb.....	25	30
BUTTER, Cacao, lb.....	75	80
CAMPHOR, lb.....	65	75
CANTHARIDES, Russian, lb.....	1 40	1 50
Powdered, lb.....	1 50	1 60
CAPSICUM, lb.....	25	30

Powdered, lb.....	\$ 30	35
CARBON, Bisulphide, lb.....	17	18
CARMINE, No. 40, oz.....	40	50
CASTOR, Fibre, lb.....	20 00	20 00
CHALK, French, powdered, lb.....	10	12
Precip., see Calcium, lb.....	10	12
Prepared, lb.....	5	6
CHARCOAL, Animal, powd., lb.....	4	5
Willow, powdered, lb.....	20	25
CLOVE, lb.....	16	17
Powdered, lb.....	17	18
COCHINEAL, S.G., lb.....	40	45
COLLODION, lb.....	75	80
Cantharidal, lb.....	2 50	2 75
CONFECTION, Senna, lb.....	40	45
CREOSOTE, Wood, lb.....	2 00	2 50
CUTTLEFISH BONE, lb.....	25	30
DENTRINE, lb.....	10	12
DOVER'S POWDER, lb.....	1 50	1 60
ERGOT, Spanish, lb.....	75	80
Powdered, lb.....	90	1 00
Ergotin, Kith's, oz.....	2 00	2 10
EXTRACT, Logwood, bulk, lb.....	13	14
Pounds, lb.....	14	17
FLOWERS, Amica, lb.....	15	20
Calendula, lb.....	55	60
Camomile, Roman, lb.....	25	30
German, lb.....	40	45
Elder, lb.....	20	22
Lavender, lb.....	12	15
Rose, red, French, lb.....	1 60	2 00
Rosemary, lb.....	25	30
Saffron, American, lb.....	65	70
Spanish, Val'a, oz.....	1 00	1 25
GELATINE, Cooper's, lb.....	75	80
French, white, lb.....	35	40
GLYCERINE, lb.....	22	25
GUARANA, lb.....	200	2 25
Powdered, lb.....	2 25	2 50
GUM ALDES, Cape, lb.....	18	20
Barbaloes, lb.....	30	50
Socotrine, lb.....	65	70
Asafoetida, lb.....	40	45
Arabic, 1st, lb.....	70	75
Powdered, lb.....	80	85
Sifted sorts, lb.....	45	50
Sorts, lb.....	30	35
Benzoin, lb.....	50	1 00
Catechu, Black, lb.....	9	20
Gamboge, powdered, lb.....	1 20	1 25
Guaiaac, lb.....	50	1 00
Powdered, lb.....	90	95
Kino, true, lb.....	2 00	2 25

Myrrh, lb.....	\$ 45	\$ 4
Powdered, lb.....	55	60
Opium, lb.....	4 00	4 25
Powdered, lb.....	5 25	5 50
Scammony, pure Resin, lb.....	12 50	13 00
Shellac, lb.....	40	45
Bleached, lb.....	45	50
Spruce, true, lb.....	30	35
Tragacanth, flake, 1st, lb.....	85	90
Powdered, lb.....	1 10	1 25
Sorts, lb.....	55	70
Thus, lb.....	8	10
HERB, Althea, lb.....	27	35
Bitterwort, lb.....	39	40
Burdock, lb.....	16	18
Boneset, ozs, lb.....	15	17
Catnip, ozs, lb.....	17	20
Chiretta, lb.....	25	30
Coltsfoot, lb.....	20	38
Feverfew, ozs, lb.....	53	55
Grindelia robusta, lb.....	45	50
Horehound, ozs, lb.....	18	20
Jaborandi, lb.....	45	50
Lemon Balm, lb.....	38	40
Liverwort, German, lb.....	38	40
Lobelia, ozs, lb.....	15	20
Motherwort, ozs, lb.....	20	22
Mullein, German, lb.....	17	20
Pennyroyal, ozs, lb.....	18	20
Peppermint, ozs, lb.....	21	22
Rue, ozs, lb.....	30	35
Sage, ozs, lb.....	18	20
Spearmint, lb.....	21	25
Thyme, ozs, lb.....	18	20
Tansy, ozs, lb.....	15	18
Wormwood, ozs, lb.....	20	22
Verba Santa, lb.....	38	44
HONEY, lb.....	13	15
Hops, fresh, lb.....	20	25
INDIGO, Madras, lb.....	75	80
INSECT POWDER, lb.....	32	35
ISINGLASS, Brazil, lb.....	2 00	2 10
Russian, true, lb.....	6 00	6 50
LEAF, Aconite, lb.....	25	30
Bay, lb.....	18	20
Belladonna, lb.....	25	30
Buchu, long, lb.....	50	55
Short, lb.....	25	27
Coca, lb.....	35	40
Digitalis, lb.....	15	20
Eucalyptus, lb.....	18	20
Hyoxyanthus.....	20	25
Matico, lb.....	70	75

Senna, Alexandria, lb.	\$ 25	\$ 30	Queen of the Meadow, lb.	\$ 18	\$ 20	Valerianate, oz.	\$ 55	\$ 60
Timnevelly, lb.	15	25	Rhatany, lb.	20	30	AMYL, Nitrite, oz.	16	18
Stramonium, lb.	20	25	Rhubarb, lb.	75	2 50	ANTINERVIN, oz.	85	00
Uva Ursi, lb.	15	18	Sarsaparilla, Hond, lb.	40	45	ANTIKAMNIA,	1 30	1 35
LEECHES, Swedish, doz.	1 00	1 10	Cut, lb.	50	55	ANTIPYRIN, oz.	1 10	1 20
LICORICE, Solazzi,	45	50	Senega, lb.	55	65	ARISTOL, oz.	1 85	2 00
Pignatelli,	35	40	Squill, lb.	13	15	ARSENIC, Donovan's sol., lb.	25	30
Grasso,	30	35	Stillingia, lb.	22	25	Fowler's sol., lb.	10	13
Y & S—Sticks, 6 to 1 lb., per lb.	27	30	Powdered, lb.	25	27	Iodide, oz.	50	55
" Purity, 100 sticks in box	75	75	Unicorn, lb.	38	40	White, lb.	6	7
" Purity, 200 sticks in box	1 50	1 50	Valerian, English, lb. true.	1 50	25	ATROPINE, Sulp. in 1/2 ozs. Soc.,	6 00	6 25
" Acme Pellets, 5 lb. tins	2 00	2 00	Virginia, Snake, lb.	40	45	oz.	35	40
" Lozenges, 5 lb. tins	2 00	2 00	Yellow Dock, lb.	15	18	BISMUTH, Ammonia-citrate, oz.	50	55
" Tar, Licorice, and Tolu,			RUM, Bay, gal.	2 50	2 75	Iodide, oz.	20	25
5 lb. tins.	2 00	2 00	Essence, lb.	3 00	3 25	Salicylate, oz.	20	25
LUPULIN, oz.	30	35	SACCHARIN, oz.	1 25	1 50	Subcarbonate, lb.	1 80	2 00
LYCOPodium, lb.	70	80	SEED, Anise, Italian, sifted, lb.	13	15	Subnitrate, lb.	1 50	1 60
MADE, lb.	1 20	1 25	Star, lb.	35	40	BORAX, lb.	7	8
MANNA, lb.	1 60	1 75	Burdock, lb.	30	35	Powdered, lb.	8	9
Moss, Iceland, lb.	9	10	Canary, bag or less, lb.	5	6	BROMINE, oz.	8	13
" Irish, lb.	12	13	Caraway, lb.	10	13	CADMIUM, Bromide, oz.	20	25
MUSK, Tonquin, oz.	46 00	50 00	Cardanum, lb.	1 25	1 50	Iodide, oz.	45	50
NUCIGALLS, lb.	21	25	Celery,	25	30	CAFFEINE, oz.	55	60
Powdered, lb.	25	30	Colchicum,	50	60	Citrate, oz.	45	50
NUMMEGS, lb.	1 00	1 10	Coriander, lb.	10	12	CALCIUM, Hypophosphite, lb.	1 50	1 60
NUX VOMICA, lb.	10	12	Cumina, lb.	15	20	Iodide, oz.	95	1 00
Powdered, lb.	25	27	Fennel, lb.	15	17	Phosphate, precip., lb.	35	38
OAKUM, lb.	12	15	Fenugreek, powdered, lb.	7	9	Sulphide, oz.	5	6
OINTMENT, Merc., lb. 1/2 and 1/2	70	75	Flax, cleaned, lb.	3 1/2	4	CERIUM, Oxalate, oz.	10	12
Citrine, lb.	45	50	Ground, lb.	4	5	CHINCHONINE, oz.	15	18
PARALDEHYDE, oz.	20	22	Hemp, lb.	5	6	CHLORAL, Hydrate, lb.	1 25	1 30
PEPPER, black, lb.	12	13	Mustard, white, lb.	11	12	Croton, oz.	75	80
Powdered, lb.	15	16	Pumpkin,	15	20	CHLOROFORM, lb.	60	1 00
PITCH, black, lb.	3	4	Quince, lb.	25	30	CINCHONINE, sulphate, oz.	25	30
Beigundy, true, lb.	10	12	Rape, lb.	65	70	CINCHONIDINE, Sulph., oz.	15	20
PLASTER, Calcined, bbl. cash.	25	3 25	Strophanthus, oz.	8	9	COCAINE, Mur., oz.	5 25	6 25
Adhesive, yd.	12	13	Worm, lb.	50	55	CODEIA, 1/2 oz.	70	75
Belladonna, lb.	65	70	SEDLIZ MIXTURE, lb.	22	25	COLLODION, lb.	65	70
Gallanum Comp., lb.	80	85	SOAP, Castile, Mottled, pure, lb.	25	30	COPPER, Sulph., (Blue Vitriol) lb.	6	7
Lead, lb.	25	30	White, Cont's, lb.	10	12	Iodide, oz.	65	70
POPPY HEADS, per 100.	1 00	1 10	Powdered, lb.	15	16	COPPERAS, lb.	1	3
ROSIN, Common, lb.	2 1/2	3	Green (Sapo Viridis), lb.	25	40	DIURETIC, oz.	1 60	1 65
White, lb.	3 1/2	4	SPERMACELE, lb.	25	25	ETHER, Acetic, lb.	75	80
RESORCIN, white, oz.	25	30	TURPENTINE, Cbian, oz.	65	70	Sulphuric, lb.	40	50
ROCHELLE SALT, lb.	28	30	Venice, lb.	75	80	EXALGINE, oz.	1 00	1 10
ROOF, Aconite, lb.	22	25	WAX, White, lb.	10	12	HYOSYAMINE, Sulp., crystals, gr.	25	30
Althea, cut, lb.	30	35	Yellow,	50	75	IODINE, lb.	4 75	5 50
Belladonna, lb.	25	30	WOOD, Guaiac, rasped.	40	45	IODOFORM, lb.	6 00	7 00
Blood, lb.	15	16	Quassia chips, lb.	5	6	IODOL, oz.	1 40	1 50
Bitter, lb.	27	30	Red Saunders, ground, lb.	10	12	IRON, by Hydrogen.	80	85
Blackberry, lb.	15	18	Santal, ground, lb.	5	6	Carbonate, Precip., lb.	15	16
Burdock, crushed, lb.	18	20				Sacch., lb.	30	35
Calamus, sliced, white, lb.	20	25				Chloride, lb.	45	55
Canada Snake, lb.	30	35				Sol., lb.	13	16
Cohosh, black, lb.	15	20				Citrate, U.S.P., lb.	90	1 00
Colchicum, lb.	40	45				And Ammon., lb.	70	75
Columbo, lb.	20	22				And Quinine, lb.	1 50	3 00
Powdered, lb.	25	30				Quin. and Stry., oz.	18	30
Coltsfoot, lb.	38	40				And Strychnine, oz.	13	15
Comfrey, crushed, lb.	20	25				Dialyzed, Solution, lb.	50	55
Curcuma, powdered, lb.	13	14				Ferrocyanide, lb.	55	60
Dandelion, lb.	15	18				Hypophosphites, oz.	25	30
Elecampane, lb.	15	20				Iodide, oz.	40	45
Galangal, lb.	15	18				Syrup, lb.	40	45
Gelsemium, lb.	22	25				Lactate, oz.	5	6
Gentian or Gentian, lb.	10	11				Penitrate, solution, lb.	15	16
Ground, lb.	11	12				Phosphate scales, lb.	1 25	1 30
Powdered, lb.	13	15				Sulphate, pure, lb.	7	9
Ginger, African, lb.	18	20				Exsiccated, lb.	8	10
Po., lb.	20	22				And Potass. Tartrate, lb.	80	85
Jamaica, blechd, lb.	27	30				And Ammon Tartrate, lb.	80	85
Po., lb.	30	35				LEAD, Acetate, white, lb.	13	15
Ginseng, lb.	4 50	4 75				Carbonate, lb.	7	8
Golden Seal, lb.	75	80				Iodide, oz.	35	40
Gold Thread, lb.	90	95				Red, lb.	7	9
Hellebore, white, powd., lb.	12	15				LIME, Chlorinated, bulk, lb.	4	5
Indian Hemp,	18	20				In packages, lb.	6	7
Ipecac, lb.	1 75	2 00				LITHIUM, Bromide, oz.	30	35
Powdered, lb.	2 00	2 25				Carbonate, oz.	30	35
Jalap, lb.	55	60				Citrate, oz.	25	30
Powdered, lb.	60	65				Iodide, oz.	50	55
Kava Kava, lb.	40	90				Salicylate, oz.	35	40
Licorice, lb.	12	15				MAGNESIUM, Calc., lb.	55	60
Powdered, lb.	13	15				Carbonate, lb.	18	20
Mandrake, lb.	13	18				Citrate, gran., lb.	35	40
Masterwort, lb.	16	40				Sulph. (Epsom salt), lb.	1 1/2	3
Onis, Florentine, lb.	30	35				MANGANESE, Black Oxide, lb.	5	7
Powdered, lb.	40	45				MENTHOL, oz.	55	66
Parcira Brava, true, lb.	40	45				MERCURY, lb.	75	80
Pink, lb.	40	45				Ammon (White Precip.)	1 25	1 30
Pasley, lb.	30	35				Chloride, Corrosive, lb.	85	90
Pleurisy, lb.	20	25				Calomel, lb.	1 00	1 10
Poke, lb.	15	18				With Chalk, lb.	60	65

Magazines.

Publications Received.

"The Practice of Pharmacy as a Liberal Profession." An address delivered in the section on Materia Medica, Pharmacy, and Therapeutics at annual meeting of the American Medical Association. By F. E. Stewart, M.D., Ph.G.

"Eucaine Hydrochlorate," a new local anæsthetic, from Schering & Glatz, New York.

Dr. F. Von Heyden's Non-Toxic Remedies—Betanaphthol, Bismuth, Phenol-Bismuth, Tribromphenol-Bismuth — from Schering & Glatz, New York.

"Clinical Reports on Ducreta"—Knoll. From McKesson & Robbins, New York.

Announcements from the Colleges of Pharmacy of Manitoba, Philadelphia, Massachusetts.

"Clinical Notes for Rapid Reference on Nosophen, Antimosine, and Eudoxine," from Stallman & Fulton, New York.

"Systems Nos. 4 and 6 for Drug Stores," from the National Cash Register Company, Dayton, Ohio.

Programme of entertainment of 18th annual meeting of the Missouri Pharmaceutical Association, from Dr. H. M. Whelpley, St. Louis, Mo.

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the special consideration of the Business Notices.

We beg to draw the attention of our advertising patrons to Mr. Murray's card, which will be seen on the opposite page. Mr. Murray is a writer of advertisements of long experience, and all advertisers who rely mainly on the wording of their advertisements to bring them in business should communicate with him. Write him for terms.

An Improvement in Spectacle Frames.

The loss of time which is involved in hanging lenses and the too frequent breakage of the lens in the act of hanging has always been a drawback to the dealer in optical goods.

The use of the screw-driver has now been done away with in the improved spectacle frame which is shortly to be placed in the market by a person well known to the trade, and who has made this matter one of study for some years, and it is impossible for the glass to jump out, no matter what tension is placed on the frame. The danger of chipping the lens is greatly diminished, and the facility with which the change can be made is a strong feature in its favor.

We have tried the displacement and re-

insertion of the lens in several pairs of spectacles and eyeglasses submitted to us, and find it practicable and very expeditious. We look for quite a revolution in the trade when the goods are placed for sale, which will be as soon as letters patent are granted.

World's Fair Diploma.

A handsome reproduction of the diploma of awards given Messrs. Frederick Stearns & Co., Detroit, Mich., by the World's Columbian Exposition appears on page 176a of this number. It is claimed by this company that they received more awards than any other pharmaceutical house represented at the fair, whether of this continent or abroad. The list is certainly a long one, and shows the enterprise and standing of this well known house. We take pleasure in reprinting it below:

(1) For the extent and importance of the exhibit and general skill in their productions.

(2) For the solubility of the tablets intended for hypodermatic medication.

(3) For the improved process in the manufacture of gelatine-coated pills, resulting in perfect protection from atmospheric influences, solubility, and handsome display.

(4) For carefully ground, well dried, and strictly pure powdered drugs.

(5) For the skill evidenced in the subdivision of the ingredients, and in the preparation of ointments and cerates.

(6) For gelatin capsules skilfully prepared, handsome in appearance, readily soluble, and put up in good style.

(7) For the ready solubility and digestive powers of Dike's pepsin, its freedom from odor, and non-hygroscopic character.

(8) For medicinal syrups, free from precipitation, discoloration, and oxidation.

(9) For the effervescent quality of granular effervescent preparations.

(10) For the palatable, agreeable, and efficient cascara aromatic.

(11) For the conscientious care taken in the manufacture of non secret preparations, and the attractive manner in which they are put upon the market.

(12) For an improved method for preparing wine of cod-liver oil with peptonate of iron, whereby the full medicinal effects of the oil are retained, at the same time getting rid of the taste and fatty parts so that it is agreeable to the taste, and can be readily taken by the most delicate stomach.

(13) For assayed fluid extracts of good condition, excellent appearance, freedom from precipitates, and of uniform strength.

(14) For the delicacy and permanence of odor in the perfumes.

(15) For the excellent quality of the toilet articles.

To induce sleep administer a moderate amount of warm liquid food before the patient goes to bed.

Mr. John Kerry

Mr. John Kerry, whose death occurred last month, was the senior partner in the firm of Kerry, Watson & Co. wholesale druggists, of Montreal, and has been prominent in drug circles since 1849. He was born in England in 1825, and settled in Montreal in 1849, where he entered the firm of Carter, Kerry & Co., afterwards Kerry Bros. & Crathern, and finally the firm as it now stands. Mr. Kerry was a prominent member of St. George's Society, of which he was at one time president. He was a member of the Church of England, and was also one of the original promoters of the Pharmaceutical Association of Quebec, of which he had filled the offices of president and treasurer, as well as one of the oldest members of the Board of Trade. He leaves three sons and two daughters. Of the former, one is a member of the firm of Kerry, Watson & Co., another is a civil engineer, and the third a physician, who is taking a post-graduate course in Hamburg, Germany.

Mr. Kerry's death was probably due to apoplexy, he having had an attack of this nature about eighteen months ago. He was a liberal contributor to local charities, and will be very much missed in both business and social circles. At a meeting of the Board of Trade the following resolution was passed:

That the council of the Montreal Board of Trade deeply regrets the death of Mr. John Kerry, a prominent merchant of this city, and an old and highly esteemed member of this board.

That the council gratefully recalls the valuable services rendered by Mr. Kerry during the seventeen consecutive years he held office on the board, he being its treasurer from 1868 to 1879, its vice-president during 1880, 1881, 1882, and 1883, and its president in 1884 and 1885.

That the council assures the family of the deceased of its sincerest sympathy with them in this bereavement, and trusts that they may find some consolation in the knowledge that Mr. Kerry's high principles, genial manner, and gentle personality will long be kindly remembered by the members of this board, and by all with whom he came in contact.

A Correction.

Editor CANADIAN DRUGGIST:

SIR,—I notice that in my letter to you of May 26th, *re* "cracked" emulsions, which you have published in the June CANADIAN DRUGGIST, you have printed in each case "crooked." Now, I fancy your readers will have some difficulty in deciding what a "crooked" emulsion means. The term "cracking" is, however, I think, aptly applied to the separating of an emulsion during manipulation.

H. H. GAETZ.

Red Deer, June 23rd, 1890.

Iodide, Proto, oz.....	\$ 35	\$ 40
Bin., oz.....	25	30
Oxide, Red, lb.....	1 15	1 20
Pill (Blue Mass), lb.....	70	75
MILK SUGAR, powdered, lb.....	30	35
MORPHINE, Acetate, oz.....	1 80	1 85
Muriate, oz.....	1 80	1 85
Sulphate, oz.....	1 90	1 90
PEPSIN, Saccharated, oz.....	35	40
PHENACETINE, oz.....	40	42
PILOCARPINE, Muriate, grain.....	35	38
PIPERIN, oz.....	1 00	1 10
PHOSPHORUS, lb.....	90	1 10
POTASSA, Caustic, white, lb.....	60	65
POTASSIUM, Acetate, lb.....	35	40
Bicarbonate, lb.....	15	17
Bichromate, lb.....	14	15
Bitrat (Cream Tart.), lb.....	20	30
Bromide, lb.....	65	70
Carbonate, lb.....	12	13
Chlorate, Eng., lb.....	18	20
Powdered, lb.....	20	22
Citrate, lb.....	70	75
Cyanide, lb.....	40	50
Hypophosphites, oz.....	10	12
Iodide, lb.....	4 00	4 10
Nitrate, gran, lb.....	8	10
Permanganate, lb.....	40	45
Prussiate, Red, lb.....	50	55
Yellow, lb.....	32	35
And Sod. Tartrate, lb.....	25	30
Sulphuret, lb.....	25	30
PROPYLAMINE, oz.....	35	46
QUININE, Sulph, bulk.....	35	38
Ozs., oz.....	38	42
QUININE, Sulphate, ozs., oz.....	16	20
SALICIN, lb.....	75	4 00
SANTONIN, oz.....	20	22
SILVER, Nitrate, cryst, oz.....	90	1 00
Fused, oz.....	1 00	1 10
SODIUM, Acetate, lb.....	30	35
Bicarbonate, kgs., lb.....	2 75	3 00
Bromide, lb.....	65	70
Carbonate, lb.....	3	6
Hypophosphite, oz.....	10	12
Hyposulphite, lb.....	3	6

Iodide, oz.....	\$ 40	\$ 43
Salicylate, lb.....	1 00	1 10
Sulphate, lb.....	2	5
Sulphite, lb.....	8	10
SOMNAL, oz.....	85	00
SPIRIT NITRE, lb.....	35	65
STRONTIUM, Nitrate, lb.....	18	20
STRYCHNINE, crystals, oz.....	80	85
SULFONAL, oz.....	40	42
SULPHUR, Flowers of, lb.....	2 1/2	4
Pure precipitated, lb.....	13	20
TARTAR EMETIC, lb.....	50	55
THYMOL (Thymic acid), oz.....	55	60
VERATRINE, oz.....	2 00	2 10
ZINC, Acetate, lb.....	70	75
Carbonate lb.....	25	30
Chloride, granular, oz.....	13	15
Iodide, oz.....	60	65
Oxide, lb.....	13	60
Sulphate, lb.....	9	11
Valerianate, oz.....	25	30

ESSENTIAL OILS.

OIL, Almond, bitter, oz.....	75	80
Sweet, lb.....	50	60
Amber, crude, lb.....	40	45
Rec't, lb.....	60	65
Anise, lb.....	3 75	3 90
Bay, oz.....	50	60
Bergamot, lb.....	3 75	4 00
Cade, lb.....	90	1 00
Cajuput, lb.....	1 60	1 70
Capsicum, oz.....	60	65
Caraway, lb.....	2 75	3 00
Cassia, lb.....	3 30	3 50
Cedar.....	55	85
Cinnamon, Ceylon, oz.....	2 75	3 00
Citronelle, lb.....	80	85
Clove, lb.....	1 10	1 20
Copaiba, lb.....	1 75	2 00
Croton, lb.....	1 50	1 75
Cubeb, lb.....	2 50	3 00
Cumin, lb.....	5 50	6 00
Erigeron, oz.....	20	25
Eucalyptus, lb.....	1 50	1 75
Fennel, lb.....	1 60	1 75

Geranium, oz.....	\$1 75	\$1 80
Rose, lb.....	3 20	3 50
Juniper berries (English), lb.....	4 50	5 00
Wood, lb.....	70	75
Lavender, Chiris, Fleur, lb.....	3 00	3 50
Garden, lb.....	1 50	1 75
Lemon, lb.....	1 90	2 00
Lemongrass, lb.....	1 50	1 60
Mustard, Essential, oz.....	60	65
Neroli, oz.....	4 25	4 50
Orange, lb.....	2 75	3 00
Sweet, lb.....	2 75	3 00
Origanum, lb.....	65	70
Patchouli, oz.....	80	85
Pennyroyal, lb.....	2 50	2 75
Peppermint, lb.....	3 00	3 25
Pimento, lb.....	2 60	2 75
Rhodium, oz.....	80	85
Rose, oz.....	7 50	11 00
Rosemary, lb.....	70	75
Rue, oz.....	25	30
Sandalwood, lb.....	5 50	7 50
Sassafras, lb.....	75	80
Savin, lb.....	1 60	1 75
Spearmint, lb.....	3 75	4 00
Spruce, lb.....	65	70
Tansy, lb.....	4 25	4 50
Thyme, white, lb.....	1 80	1 90
Wintergreen, lb.....	2 75	3 00
Wormseed, lb.....	3 50	3 75
Wormwood, lb.....	4 25	4 50

FIXED OILS.

CASTOR, lb.....	9	11
COD LIVER, N.F., gal.....	2 25	2 30
Norwegian, gal.....	3 00	3 25
COTTONSEED, gal.....	1 10	1 20
LARD, gal.....	90	1 00
LINSEED, boiled, gal.....	62	65
Raw, gal.....	60	62
NEATSFOOT, gal.....	1 20	1 30
OLIVE, gal.....	1 20	1 25
Salad, gal.....	2 50	2 60
PALM, lb.....	12	13
SPERM, gal.....	1 35	1 40
TURPENTINE, gal.....	60	65

Drug Reports.

Canada.

The general report for last month is quiet business. If it is any consolation, other lines of business are the same. Opium and morphia are higher. If reports of the opium crop are correct, higher prices may be looked for.

Glycerine firm. Higher prices are looked for later on. Camphor has advanced abroad. The future of acacia is not hopeful for lower prices. Balsam tolu, dearer. Insect powder, according to present price of flour, would be worth at least 40c.

Carbolic acid good demand, very firm in price.

Vaseline goods are lower in price. Seigel's syrup has been advanced by makers. Apenta water, smallest size, now retails at 15c.

England.

London, July 25th, 1896.

The drug and chemical markets appear in a state of suspended animation during the hot weather and stagnation in trade. Wholesalers report that business is very slack, except for export trade, which is exceptionally brisk considering the time of the year.

Gum acacia is easier and the Soudan campaign has hardly affected supplies. Camphor is down to about its old level again. Tartaric and citric acids are firm, as this is the principal consuming period at home. Glycerin is firmly held and it would not be surprising if rates were put up. Menthol very quiet and a trifle easier. French essential oils are moving upward and Mitcham oils are quoted dearer, owing to the protracted drought having injuriously affected the crop. Cod liver oil is flat and prices are barely maintained. Opium is very firm and an early advance seems very probable. Balsams of tolu and copaiba dearer.

To increase the digestibility of milk add two teaspoonfuls of bicarbonate of sodium to the pint.

"Surf" Sea Salt

is a new 15c. pkg., put up in 1 doz. 5 lb. pkgs., per case, price, \$17; per gross (12 cases) \$171. Wholesale houses sell it. Pkg. is a new patent cardboard one, and handsomely printed. Sales of first week in Toronto 120 cases. The salt is clear as glass and of a size that dissolves readily. It never gets damp, and contains no dirt or grit. Analyzes 99.98 per cent. pure salt. You can work up a good salt trade if you try. Why not do it?

TORONTO SALT WORKS, Toronto, Importers.

TRY

The Bryant Press

FOR

Drug Labels

Prescription Blanks

Drug Envelopes

OR ANY

Printing

THAT YOU MAY REQUIRE

20 Bay Street,
Toronto.

TELEPHONE 2377

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VIII.

TORONTO, SEPTEMBER, 1896.

No. 9

"APENTA"

THE BEST NATURAL APERIENT
WATER.

Bottled at the UJ HUNYADI

SPRINGS, Buda Pest, Hungary

Under the absolute control of the Royal
Hungarian Chemical Institute (Ministry of
Agriculture), Buda Pest.

"APENTA"

THE BEST NATURAL APERIENT
WATER.

"We know of no stronger or more
favourably-constituted Natural Aperient
Water than that yielded by the Uj Hunyadi
Springs."

L. Lieberman

Royal Councillor, M.D., Professor of Chemistry,
and Director of the Royal Hungarian State
Chemical Institute (Ministry of Agriculture),
Buda Pest.

"APENTA"

THE BEST NATURAL APERIENT
WATER.

By instructions from the Apollinaris Company,
Limited, now offered to the Trade at

\$5.50 per case of 25 large glass bottles.
\$8.00 " 50 small " "
\$8.00 " 100 glass quarter "

SHOULD THE PRICE OF

"APENTA"

be reduced, we guarantee to allow such reduction
to our Buyers on their unsold stock, and as far as
possible, to secure a corresponding reduction to
Retailers upon their unsold stock

SOLE EXPORTERS:

THE APOLLINARIS COMPANY, Ltd.,
LONDON.

CANADIAN SUB-AGENTS:

WALTER R. WONHAM & SONS,
Montreal.

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

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New advertisements or changes to be addressed

Canadian Druggist,

1112 RICHMOND ST. WEST,

TORONTO, ONT.

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Dominion Pharmaceutical Association.

The president of the Pharmaceutical
Association of the Province of Quebec
(Mr. R. A. Williams), in his annual ad-
dress to the members of that association,
referred to the establishment of a Dominion
Association as follows:

"I regret to have to report that the
Dominion Pharmaceutical Association is
not yet *un fait accompli*, but I trust that
the small minority of associations which
did not see their way clear to join in form-
ing such a body will soon awake to the
knowledge that a Federal Canadian Phar-
maceutical Society would be of great ad-
vantage to the fraternity throughout the
length and breadth of our fair Dominion.
If the various Boards of Trade see wisdom
in forming a general association for the
Dominion, why should we be backward
in making a similar good move? Union
is strength, and we require united efforts
to obtain the redress of several things
which are prejudicial to our welfare."

That the desired end has not yet been
accomplished is a matter for regret, and
the fault certainly lies at the door of some
of those who should be foremost in fur-
thering the work.

If our pharmaceutical associations and
corporate boards of pharmacists, either as
college councils or provincial associations,
are called upon to legislate "for the good
of pharmacy," certainly joint action is
necessary and very greatly to be preferred
to any individual efforts

Take, for instance, the work done by
the Ontario Society of Retail Druggists.
We all know what efforts were made by
local organizations, composed of repre-
sentatives of the various territorial dis-
tricts, to better the condition of trade in-
terests in their several localities. The
work accomplished was, in some cases, a
success, in others the reverse: a lack of
interest, a selfish indifference we might
almost say, preventing the furtherance of
the object in view. Then we had a Pro-
vincial Pharmaceutical Association, which,

had it received the support it was entitled to, would have made itself felt and would have been a power in our work. However, the apathy displayed caused the promoters to lose heart and abandon the project. Now, these are the only reasons we have yet heard against the non-establishment of a Dominion association, viz., the want of success in firmly establishing the smaller organizations. But here let us look at the latest venture, that of the Ontario Society of Retail Druggists. The urgent appeals of the CANADIAN DRUGGIST and its efforts to stimulate the pharmacists of the Province of Ontario to organize (see CANADIAN DRUGGIST, July, 1895, p. 154) at last had its effect in stimulating a number of pharmacists to take steps towards the formation of a society which now is wielding a power that makes itself felt, not only in the ranks of the retail pharmacists of this province, but also amongst the wholesale and manufacturing interests, and its influence will continue to be felt as long as unanimity of purpose and combined effort in the right direction permeate its members, and not only has it been the means of doing much to help the trade in this province, and to some extent in the sister provinces, but it has stimulated other existing societies to awake to the fact that a combination of forces must accomplish for the Dominion what this one society is doing for a province. A Dominion Pharmaceutical Association need not necessarily be for the purpose of regulating standards of qualification, nor for the determination of degrees—these matters now dealt with by the colleges and associations in our midst can very well be left, in the meantime at least, to these bodies, but that a governing body is necessary to look after trade interests generally throughout the Dominion, to guard all interests of retail druggists, no matter where situated, and unite in one organization a body of men who will have influence, both through weight of numbers and unity of purpose, to obtain legislative action where necessary for its purposes. This, we think, must be conceded by all who have seriously considered the present condition of the drug business and its outlook for the future. It is unanimously admitted that the drug business is not in a satisfactory state. Is it worth while to take steps to bring about, if possible, a better condition of affairs? If so, is not joint action of the larger number the most desirable way to bring about any such result? We think

so, and we would like to hear the opinions of some of our readers

Taken to Task.

Our editorial friends of the *Canadian Pharmaceutical Journal* have taken us severely to task for our article on substitution in our last number.

We admire their zeal in espousing the cause of the retail druggist, and some of their remarks we are in hearty sympathy with. They cannot desire the welfare of the retail druggist any more than we do, and so long as they are willing to discuss and advocate principles of honorable conduct between the druggist and those with whom they form business connections we will be at one with them.

We do not withdraw a particle of what



Mr. John Henderson,
President of the Wholesale Drug and Proprietary Medicine Association.

we wrote last month. We felt then that we wrote what was rigidly true, and in the truest interest of every pharmacist, and we think so still. When we write frankly to druggists we do so knowing that the public are excluded from a knowledge of our statements, and that our readers are too intelligent to believe that we ever write from a personal or unworthy motive. We are free to admit that if we can justly be charged with doing so we will deserve the censure which should follow it. In the censorious article which our fellow-journalists have written they have imputed to us the publishing of a statement regarding Mr. Good which did not emanate from him. Our statement was: "That within one week in the city of Toronto Mr. Good

obtained by direct purchase, when asking for Carter's pills, enough substitutes to prove that over one-half the demand he creates is tampered with."

That statement was based on the fact that over sixty substitutes were offered and paid for by his agent when Carter's were asked for, and that in four cases other pills were wrapped up and sold for Carter's without any comment being made whatever.

Now, the case of Carter's pills was only taken as a specimen one, the events recorded having so recently occurred. Our sole object in directing attention to the matter was to show druggists in what an unenviable position they are placed by any substitution. They not only justify, to a certain degree, the charges made against them in the daily press, but they violate an agreement made with another body, from whom they expect and demand protection of their interests.

We are not in the confidence of patent medicine men, nor have we any special desire to be; but when they make definite statements which imply the perpetration of a wrong by those with whom we are so intimately connected, we feel in duty bound to preserve the honorable fame of our fellow-druggists. If that could be done by a denial of the statement, we should be exceedingly pleased to be in a position to make it; but as we are not, and believe the truth of the charge, we cannot, and could not, conscientiously do other than we have done. The principle of substitution is wrong. It is wrong! It is wrong!!

Editorial Gleanings.

Mr. Joseph Ince has resigned his position as lecturer on pharmacy in the Pharmaceutical Society of Great Britain.

Mr. Michael Carteghe, F.I.C., F.C.S., for the past fourteen years president of the Pharmaceutical Society of Great Britain, has retired from that position. His successor is Mr. Walter Hills, F.C.S.

The manufacturers of antipyrin have declared a dividend of 28 per cent. on a capital of 6,200,000 marks, and those of phenacetin 16 per cent. on 16,000,000 marks, besides distributing otherwise the sum of 938,000 marks.

At a meeting held in Toronto, September 7th, of the graduate opticians of Canada, called for the purpose of organizing themselves into a society, the following officers were elected: President, J. H. H. Jury, Bowmanville; first vice-president, C. J. McIntyre, Chatham; second vice-president, R. Hensley, Montreal; secretary-treasurer, Frank Ellis, Toronto.

Protonuclein..

Tablets. (100 3-grain Tablets in bottle) per doz. \$9.00
 " (1000 3-grain Tablets in bottle) . each 6.75
 Powder. (1 oz. bottles) per doz. 9.00
 " (8 oz. in bottle) each 5.50

REED & CARNRICK,
 30 Wellington St. East, TORONTO.

Duncan, Flockhart & Co.'s

Blaud Pill Capsules

Are soft and flexible Never become oxidized
 Never become hard Never vary in strength

These Capsules are put up in 1, 2, and 3 pill sizes, with or without Arsenic, and can be supplied in boxes of 25 or 100 (each). They are prepared by a unique and original process, which entirely overcomes the tendency to **hardening** which is so common in the **Blaud Pills**.

R. L. GIBSON,
 88 Wellington St. West,
TORONTO.

Toilet Soaps

Messrs. **FELS & CO.**, Philadelphia, Pa., are known as one of the largest Toilet Soap manufacturing establishments in the States, who only make first-class

MILLED SOAPS

Having sold many thousands of dollars worth of their goods in former years, many of our customers know that the quality and style of their soaps cannot be excelled. But from those who have never handled them we solicit a trial order. Prices range from \$3.00 per gross to \$4.00 and over a dozen.

WE CAN GIVE YOU A GOOD MEDIUM-
 PRICED SOAP THAT WILL PLEASE YOU

If our travellers don't reach you with samples, order a small sample shipment, stating the prices you are willing to pay, and we will send you a nice selection. Repeat orders from our customers also welcome.

A fresh shipment of **CHAPIREAU'S** Cacheteuses and Cachets, also Faultless Pepsin Chips and Fruit Chips to hand.

Canadian Specialty Comp'y

38 Front Street East, TORONTO, ONT.

Pharmacy Text Books

Hereunder we publish our list of Text Books required for the '96-97 O. C. P. Course, and to it we invite the attention specially of intending students, hoping for the favor of a call when wants are known.

Art of Dispensing	\$1.00
Balfour Stewart's Physics	1.25
Bastin's College Botany	2.50
British Pharmacopoeia	1.75
B. P. Addenda	.30
Fowne's Chemistry	2.60
Flückiger & Tschirch's Pharma- cognosy.	2.75
Gray's Lessons in Botany	1.00
Heebner's Manual of Pharmacy	2.00
Heebner's Synopsis of B. P.	1.00
Jones' Practical Chemistry	.75
Maisch's Materia Medica	2.80
National Dispensatory, leather	7.25
National Formulary	1.00
Proctor's Testing	.75
Remington's Pharmacy	5.25
Squire's Companion	3.00
Spotton's Botany	1.00

Liquid Vaccine—in sealed tubes Vaccine Points
 Still's Oil of Life Foot Elm Japan Wax Ka-no-ta
 Pickling Spices Celery Seed Ideal Invalid Glasses
 E. & Co.'s Essences Rimmel's Unscented Glycerine Soap
 Dry Epsoms, in barrels Soap Bark, in ounces
 Aluminium Combs Powdered Magnesia Carb.
 Beeman's Pepsin Gum

Brunswick Black

THE BEST STOVE PIPE VARNISH
 6 oz. tins and 8 oz. stones

Durham Mustard

For Culinary Purposes—4 lb. tins

"E. & CO."

Canadian Cattle Spice

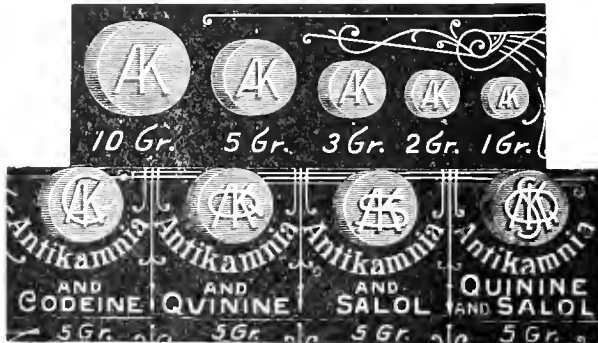
Don't make up one of your own until you examine ours

ELLIOT & CO.
 5 Front St. E. = Toronto

Genuine Antikamnia Preparations

ANTIKAMNIA POWDERED.

ANTIKAMNIA TABLETS,
(1 gr., 2 gr., 3 gr., 5 gr. or 10 gr. each.)
ANTIKAMNIA and CODEINE TABLETS,
($\frac{1}{4}$ gr. Antikamnia, $\frac{1}{4}$ gr. Sulph. Codeine.)
ANTIKAMNIA and QUININE TABLETS,
(2 $\frac{1}{2}$ gr. Antikamnia, 2 $\frac{1}{2}$ gr. Sulph. Quinine.)
ANTIKAMNIA and SALOL TABLETS,
(2 $\frac{1}{2}$ gr. Antikamnia, 2 $\frac{1}{2}$ gr. Salol.)
ANTIKAMNIA, QUININE and SALOL TABLETS,
(2 gr. Antikamnia, 2 gr. Sulph. Quinine, 1 gr. Salol.)



Without above Monograms None are Genuine.

These preparations are made solely by us and are put up in 1-oz. packages only.

NEVER IN BULK.

Trade supplied by all jobbing houses in the United States, Canada, Mexico, South and Central America.

British & Colonial Depot, 46 Holborn Viaduct, London, E. C., Eng.

The Antikamnia Chemical Company,

Price List on Application.

ST. LOUIS, MO., U. S. A.

JUST PLAIN TOBACCO OF THE HIGHEST GRADE

FLAVOR AND FRAGRANCE UNEQUALLED

FORTIER'S Cigars and Cigarettes

GIVE BEST OF SATISFACTION AND WILL INCREASE YOUR SALES,

We Sell to most Druggists
But we are anxious to Sell to you

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Lafayette

Cigars and Cigarettes 5 cents

Creme de la Creme

Cigars and Cigarettes 10 cents

Royal Turkish

Cigarettes 15 cents

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Cigars and Cigarettes 15 cents

Greme de la Greme Cigar Co.
MONTREAL.

There is a BEST in
Everything, and the best in Cod-Liver
Oil preparations is

STEARNS' WINE OF COD-LIVER OIL

Which to-day (barring a largely advertised emulsion) is the best selling preparation of the Oil on the Druggists' shelves. The reasons are obvious, among which may be mentioned - - -

1. It is a Preparation of Great Merit.
2. It Fills a Long-Felt Want.
3. It is Prescribed by Physicians Everywhere.
4. It Always Gives Satisfaction to the Customer.

And it has made its own way entirely upon its merits, as it has never been advertised to the public.



SOLD BY ALL JOBBERS AT \$8.00 PER DOZEN, OR
MAY BE ORDERED DIRECT FROM THE
MANUFACTURERS.



Frederick Stearns & Co.
WINDSOR, ONT.

Ontario Society of Retail Druggists.

ANNUAL MEETING.

The annual meeting of the Ontario Society of Retail Druggists was held in the lecture theatre of the Ontario College of Pharmacy, Toronto, on Wednesday, September 9th. The meeting was called for one o'clock, but the members were very dilatory in gathering, and a protracted executive meeting in the forenoon detained the officers, so that it was nearly half past two o'clock before President G. E. Gibbard took the chair, the attendance then numbering nearly one hundred.

Having opened the proceedings with a few words of welcome, the president called Mr. W. A. Karn to the chair while he read the following address:

In the course of his remarks the president said the evil we undertook to fight had taken fast hold of many places in the provinces, and this evil is such that the present tendency of trade is certain to foster its growth. In those places where the druggists themselves had given way to the evil tendencies, demoralization was complete. The last vestige of profit had been swept away. Men had turned their places of business into free distributing depots of patent medicines, in some places even offering a premium to the public to come and relieve them of the stock. In one town a member of the trade informed your president that on the sale of \$2,000 worth of one preparation he had not made a profit of \$10. In the city of Brantford at the present time twenty-five articles are being advertised at five cents. These places are a sample of what occurs when the druggists are the transgressors. The seriousness of this condition of affairs can be appreciated when we consider that fully fifty per cent. of the trade of a country druggist is in patent medicines. With the cities of Toronto, Hamilton, Ottawa, and Brantford as centres from which to radiate, the pernicious practice had spread to many places in their vicinities, and threatened every town and city in the province. The danger was most imminent in the west, where a feeling of feverish unrest existed which augured ill for the trade in general. To check the spread of the plague and restore to a healthy condition the trade, where attacked by the disease, was the task imposed on your officers.

Entire success during the short time which has elapsed since our organization is too much for even the most sanguine to expect. When the work was actively entered upon many unforeseen difficulties were encountered, and a number of these have still to be overcome. First among these I might mention the lack of complete unity in our own ranks. Again, we discovered that large stocks of patent medicines are carried by wholesale grocers of Montreal. From these the cutter has been able to replenish his depleted store when his orders were declined by our friendly houses. Another serious difficulty faced us early in the campaign, and one which

hampered the work more than all others, I refer to the shortness of funds. The first two of these difficulties still exist, but the last has happily been overcome. There are a number of minor troubles, but these would rapidly disappear before a perfect organization and a short period of vigorous activity, leaving the way clear for a bold onslaught upon our principal enemies. While continuing our operations principally to the Province of Ontario, we yet realize the great advantage a united Dominion would be in securing the end aimed at. Accordingly we placed ourselves in communication with the members of the trade in other provinces, and have had the satisfaction of seeing the formation of similar societies in all the other provinces but one.

The questions, "What good has your society done anyway?" and, "Why should we contribute money to keep it going?" have been often addressed to your officers.

We might state briefly, then, some of the results of our work.

(1) The spread of cutting has been prevented. Only one new cut-rate store has come under our notice within the last nine months. Whereas, had it not been for the influence of our society, we believe, and it is also the opinion of others well informed, that the whole of Eastern Ontario would have been overrun with the practice before now.

(2) When we started nine months ago there were at least twenty-five places in different sections of the country where "persistent cutting" prevailed. That number is now reduced to about five. In all but one of these five the conditions are much improved, prices generally have advanced and demoralizing advertising has almost ceased.

(3) We have prevented new preparations just being put upon the market from falling immediately into the hands of the cutters, and thus saved to the druggist many good dollars in profit, which otherwise would have gone elsewhere.

(4) We have aroused the trade of the Dominion to a realization of the threatened danger, and "forewarned being forearmed" it is now in a better position to protect itself against dangerous enemies.

To these might be added the spirit of good fellowship which such societies as ours engenders amongst its members.

Before closing, I wish to bear testimony to the valuable assistance rendered your officers by the members of the wholesale jobbing trade, and also a portion of the manufacturers. Their friendliness to the society from the first enabled us to accomplish much in a short time which otherwise would yet have remained undone. Your executive have shown a willingness to sacrifice personal matters to the general good which should receive proper recognition at your hands. I cannot refrain from a word of praise for your secretary. When we entered upon the work there was a fear that the president

and secretary residing in different towns would be a disadvantage, and probably interfere with the success of our plans. Such a fear has proved groundless, and it has been advantageous rather than otherwise. Not only does the amount of work done by Mr. Pepper call for special mention, but its manner of doing has been most praiseworthy. With ability and willingness is combined enthusiasm and determination, all going to make up a first-class secretary.

Reference was also made to the death of Mr. W. G. Smith, of Guelph, a member of the executive.

We are obliged to curtail the president's address on account of lack of space.

At the conclusion of his remarks the president resumed the gavel, and Mr. Karn moved the reception of the address, expressing at the same time his regret that the druggists did not take more interest in the doings of the association. The future of the trade was in their own hands, and negligence of the work the society had undertaken must inevitably mean disaster. Their very existence was at stake, and who could be expected to protect them if they did not look after it themselves? (Hear, hear.)

The address was received and laid on the table for future consideration.

Mr. J. T. Pepper, Woodstock, presented his report as secretary-treasurer. It showed the society to have a membership of 650, so that only about 100 druggists were not in sympathy with the movement. Many, however, had not paid the full membership fee, and that matter was dealt with later on. The receipts from members' fees were \$1,167.79, and from other sources \$185.75, making the total receipts \$1,353.54. The expenditure had been \$1,286.19, so that there was a balance in hand of \$67.35. The report was received and adopted *nem. con.*

A communication was read from Mr. R. W. Chambers, of Blenheim, regretting his inability to attend the meeting, and asking how it was that Robert Simpson continued in the drug business after having been fined in the police court.

The three members of the trade in Dunnville also wrote congratulations upon the work so far accomplished by the society, and stating that a meeting of District No. 10 a resolution had been passed calling on the society to take steps to place Paris green and sulphate of copper upon the poison list. This letter was referred to the executive.

Upon the suggestion of the executive, through the president, a nominating committee was struck, consisting of a representative from each district, to nominate officers for the year. The committee retired to prepare their report.

Mr. Phillips, of Fergus, asked what answer the executive had to offer to the question Mr. Chambers had sent in reference to The Robert Simpson Company.

Mr. W. A. Karn, as chairman of the Infringement Committee of the O.C.P.

Council, made a lengthy explanation of the situation in reply. He said it was true that the firm in question continued to carry on the drug business after the courts had inflicted a fine, and just at the present there was a doubt whether the Act under which they prosecuted reached incorporated companies. The point was a new one, for which there was no Canadian precedent, but there was an English precedent, which, he regretted to say, was against them. Still, they intended to go on with the fight. There was a case now pending against The Robert Simpson Company, and they intended to prosecute it to the bitter end, and find out whether the Act gave to incorporated companies privileges that it denied to individuals. The Council were determined to proceed with the matter if it took every dollar they had. (Hear, hear.)

Continuing, Mr. Karn said that there were many small infringements being committed all the time by retail druggists, and if he had his way they would be brought to time in every case. He would always give a man fair warning, but if he persisted in spite of warnings he would take steps to stop him. (Hear, hear.) He considered, further, that it would be a step in the right direction if every retail druggist was compelled to keep a properly qualified assistant; this would weed out the weak men and provide positions for the students when they had received their diplomas.

Another thing they should do, and that was to endeavor to influence the wholesale houses against the practice of setting up and backing men of small and insufficient means. A young man, without capital, could get a wholesale house to give him a few hundred dollars credit, and be set up in a town where the market was already fully stocked, to the detriment of those already in the field and at no ultimate advantage to himself. The society, too, should protest most emphatically against the wholesale dealers and the manufacturers placing physicians on the same footing with the druggist. The doctor could get goods at the same discounts and on the same terms as the druggist, and they should protest against this continuing.

In conclusion, Mr. Karn endorsed the suggestion in the president's address, that steps be taken towards forming a Dominion association. Such an organization would bind the whole trade in a bond of mutual protection. They had a right to such protection. They had spent the best days of their lives in preparing and fitting themselves for the business, and with the time and money expended—far more than in most businesses—they were entitled to this measure of self-protection. Only in that way could they secure what they needed; but by careful, judicious organization, they could get what they wanted from the wholesalers and jobbers, from the manufacturers, and, if necessary, from the legislature, too. (Applause.)

Mr. Phillips, Fergus, thanked Mr. Karn for his full and lucid exposition, and in-

formed the meeting that only a few miles out of Fergus there was an ordinary country store which was selling patent medicines at cut rates.

Mr. Karn replied that his committee was prosecuting a vigorous campaign against country stores, and they were securing convictions every day. The number of these cases was very large, and the effect of their activity was becoming apparent, he thought.

At the invitation of the president, Mr. G. E. Tremble, of Montreal, secretary of the Retail Drug Association of that city, addressed the meeting briefly. He said that the trade in Montreal had given some consideration to the question of forming a Quebec Provincial Association similar to this, but at present they were not troubled with the evil of price-cutting, consequently there was considerable apathy in the matter. One evil that did exist among them, however, was the practice among the wholesale grocers of carrying big stocks of patent medicines for the country dealers in the many villages where no drug stores existed, and the whole trouble in the trade was that they had not faith enough in one another. (Hear, hear.) It seemed to him that they were too ready to think the next fellow was the biggest fakir on earth, "and," added Mr. Tremble, amid laughter, "it's not necessarily so."

A desultory conversation followed on the question of fees. Some difficulty presented itself to many present in understanding the situation, from the fact that the treasurer's report had shown payments all the way from \$1 to \$5. The president, however, explained that the constitution provided for the levying of fees up to \$5 in \$1 instalments, that the first dollar had been paid by all who were counted as members, that a lesser number had paid the second call, fewer still the full amount, but that wherever systematic collecting had been adopted the full \$5 had been willingly given. It was, however, a very expensive way to get in their funds, and he thought some change should be made. It was a mistake in the first place to put the first call as low as \$1.

Mr. Jury, Bowmanville, suggested that the executive committeeman in each district act as collector for the fees in his district.

At this point the nominating committee returned with their report, which was as follows: That the officers for the ensuing year be: President, G. E. Gibbard, Toronto; vice-president, L. W. Yeomans, Belleville; secretary, J. L. Pepper, Woodstock; executive, H. Watters, Ottawa; D. M. Waters, Belleville; H. S. Macdonald, Peterboro; I. Curry and F. W. Flett, Toronto; George Monkman, Barrie; T. Stevenson, Orangeville; W. Greenwood, St. Catharines; R. Ferrah, Galt; W. T. Strong, London; Robert Wightman, Owen Sound; J. Auston, Simcoe; J. E. D'Avignon, Windsor.

The report was received and some discussion arose as to whether the president should again be charged with the duties

of organizer. Mr. Gibbard himself protested against his re-election, declaring that he had given up almost the whole of his time to the affairs of the society, greatly to the detriment of his own business, and that he would much prefer that someone else be put in the chair now. This the meeting refused to consent to, and finally it was decided that the matter of the organizer be left in the hands of the executive, upon which Mr. Gibbard consented to stand again for the presidency, and the committee's report was adopted without change.

The president thanked the members for their expression of confidence, remarking that he knew some had professed to believe that the society only existed for the purpose of giving the president a soft sit. If anyone who had that idea would apply to him he would gladly assist him to secure the job if he had the ability to do the work. The time and labor required interfered greatly with his private business, and if it were not for the interest he had in the work, and his anxiety to forward the interests of his fellow-druggists, he would not stay with it another day for all the money they could offer him.

Mr. Secretary Pepper also returned thanks for re-election, at the same time regretting the general lack of interest in the doings of the society. This was the last effort that would be made to protect their interests as a class, and if it failed he would not give much for the future. The wholesale houses were all right, and ready to treat them fairly, but there were still some manufacturers who wanted looking after.

The consideration of the president's report was then taken up, special attention being given to various suggestions offered therein. The proposal to increase the annual fee was introduced by a resolution from Mr. Curry, who moved that the annual fee be at least \$3 and not more than \$5, the said \$3 to be payable on the first call, and the balance to be levied if required. A long discussion followed, and much time was taken up in explaining the exact situation at present existing, but, finally, after several amendments had been proposed and withdrawn, the motion carried unanimously, and was ordered to be incorporated in the constitution.

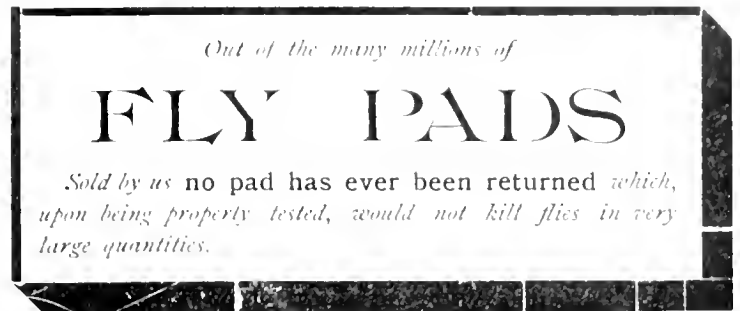
The president's proposal to reduce the acting executive, on economic grounds, was, after some discussion, left to the executive to deal with, as was also his reference to the wholesale grocers of Montreal and the general question of the control of patent medicines.

The suggestion that steps be taken towards organizing a Dominion Association of Retail Druggists was also referred to the executive for action if deemed advisable.

A resolution was passed instructing the secretary to call in the arrears of fees, which, if fully paid up, will, in all probability, carry the society until the meeting of 1897.

The society then adjourned to meet again at the call of the chair.

A Wonderful Record



TRUE, we have a few complaints yearly, but failure may always be traced to one of the following reasons, viz.:

EITHER the plates have been placed in a window where there is a strong draft, and consequently no flies (it being well known that they will not stay in a draft),

OR, they have been placed in a dark part of the room where there are very few flies to be killed,

OR, the pads have been flooded with water so that the flies cannot light on them.

If our retail drug friends will see that the above mistakes are avoided,

We Guarantee FLY PADS to Give Satisfaction in Every case

**Avoid unsatisfactory
Imitations** 



**WILSON'S
FLY PADS**

Are the original
and only genuine

ARCHDALE WILSON & CO., SOLE MANUFACTURERS **Hamilton, Ont.**



We beg to announce that our special line of Stationery for Fall and Christmas Trade is now ready for inspection.

Fine Stationery suitable for the season is our specialty, and our stock will be found up-to-date in every particular.

Our Boxed Papers and Papeteries are, as usual, the best value in the market.

We carry a large and choice selection of Playing Cards by leading makers at home and abroad.

Close and prompt attention given to mail orders.

WARWICK BROS. & RUTTER,

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TORONTO, ONT.



We Manufacture

Envelopes
Writing Tablets
School Blanks
Memo. Books, etc., etc.

And are Headquarters for

ALL KINDS of **STATIONERS' SUPPLIES**

DO YOU WANT THESE GOODS?

Then write us for prices.

THE W. J. GAGE CO., LTD.,
 52-54 Front St. West, - - TORONTO.

DO YOU CARRY ODOROMA IN STOCK
If Not, Why Not?**ODOROMA****The Perfect Tooth Powder**

Has captured the market wherever it has been introduced. If it is a new thing to you, here are a few reasons why you should handle it:

It is cleansing, antiseptic, fragrant, refreshing.

It is perfectly harmless.

It has been analyzed by the most expert chemists, who all report in the most favorable terms.

It sells at a glance in the first instance, and on its reputation thereafter.

It yields more profit to the retailer, and to the consumer a greater quantity of the best quality, than any other tooth powder in the world.

Order from your wholesale house

AROMA CHEMICAL CO., - TORONTO

The J. STEVENS & SON CO'Y, Ltd.,
 145 Wellington St. West, TORONTO.

(Near Union Station.)

Druggists' Specialties,**Surgical Dressings,****Elastic Stockings,****Clinical Thermometers,****Glass Importers,****Trusses and Suspensories,****Medical Batteries,****Lints and Cottons,****Abdominal Belts,****Instruments of all kinds**

Send for quarterly quotations.

PRICE LIST**Common Sense Exterminator FOR ROACHES**

25c. each, \$1.75 doz.; 50c. each, \$3.75 doz.; \$1.00 each, \$8.00 doz.

Common Sense Exterminator FOR RATS AND MICE:

15c. each, \$1.00 doz.; 25c. each, \$1.75 doz.; 50c. each, \$3.50 doz.; \$1.00 each, \$8.00 doz.

Only infallible remedy known. No smell from Dead Vermin. **Not Poisonous** to man or beast. Once used always recommended. Sold by Wholesalers at

MONTREAL, TORONTO, and LONDON.

Common Sense Mfg. Co.,

523 King Street West, Toronto.

Manufacturers of Common Sense Stove Polish, and Common Sensoline Bicycle Lubricator.

Seasonable Goods**DAVIS' FLY FELTS****LUCHEN'S FLY PAPER****L.D.Co. STICKY FLY****MARSHALL'S FLY CATCHER****SMITH'S FLY SQUARES****TANGLEFOOT****TANGLEFOOT LITTLE****WILSON'S FLY PADS****LONDON DRUG COMPANY****London, Ont.****WE ARE GROWING!****WHO ARE GROWING?****Saunders & Evans**

The rapid increase in our business has necessitated our removing to more commodious premises. Our new business home is

30 Wellington St. East**Toronto**

Where can be seen the largest, best, and cheapest stock of

Sponges and Chamois Skins

In Canada. Our Sponges are purchased for us at the fisheries, and come direct from Nassau, Florida, Cuba, Abaco, Acklins, Exuma, and the far-famed isles of Greece.

Our Chamois are imported from the headquarters for this article in England and the United States.

The secret of our being able to give unprecedented value in these lines is our knowing how to buy. The case in a nutshell. Try us, and convince yourself that our claim is no vain boast.

Sponges to suit every requirement and every trade. Sponges of every variety and every grade. In original packages, unbleached, or in cases, bleached.

Ginseng Root

We want your Ginseng and will pay highest market values. Write us for quotations.

Bach, Becker & Co.

Dealers and Exporters of Raw Furs and Ginseng

103-107 Michigan St.,

CHICAGO, ILLINOIS**Lyman Bros. & Co.**

(Limited)

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TO clear out stock we offer the following:

Rowney's Tube Colors**...AT \$4.50 PER GROSS...**

(Subject to stock)

1-1/6 dozen	Italian Pink
1-7/12	" Terra Vert
10-1/3	" Yellow Ochre
2-3/4	" Zinc White
1-1/6	" Verdigris
5/12	" Light Red
7-7/12	" Venetian Red
1-5/6	" Naples Yellow, No. 2
6-1/12	" Sugar Lead
1-1/2	" Asphaltum
1-7/12	" Blue Black
2-7/12	" Lamp Black
4-1/12	" Antwerp Blue
3-5/6	" Raw Umber
3-1/2	" Burnt Umber
5/6	" Raw Sienna
1-3/4	" Chrome Green, No. 1
1/2	" Chrome Green, No. 2
3-1/6	" Chrome Green, No. 3
1-3/12	" Emerald Green
1	" Chinese Blue
1-2/3	" Caledonian Brown
2	" Vandyke Brown
2-1/3	" Brown Red
3-1/4	" Chrome, No. 3
5-1/12	" Chrome, No. 4
3 5/12	" McGulp
2-1/4	" Sap Green
1-1/3	" King Yellow
4-5/12	" Scarlet Lake
1-3/4	" Purple
1/6	" Yellow
1	" Litharge
1-1/6	" Gamboge

THE FOLLOWING AT \$2 PER DOZ.

2-7/12 dozen	French Ultra Blue
1-1/2	" Madder Lake

THE FOLLOWING AT \$1 PER DOZ.

1-1/2 dozen	Chinese Vermillion
18-1/2	" Vermillion
1/4	" Madder

THE FOLLOWING AT \$3 PER DOZ.

2-3/4 dozen	Carmine
3-3/4	" Carmine Violet

Trade Notes.

A. McLachlan has opened a new drug store in St. Thomas, Ont.

McAulay & Coleman have opened a drug store at Trail, B.C.

John McLeister's drug store, Alexandria, Ont., was destroyed by fire Aug. 21st.

The mortgagee is in possession of the Hobart Medical Hall, Kingston, Ont.

N. A. Bosworth, Stratford, Ont., has sold out to H. W. Thomson, of Mitchell.

Thomas B. Welch has purchased the drug business of F. W. Meek, Strathroy, Ont.

J. H. Dennis has purchased the drug business of Gamon & Co., Shelburne, Ont.

H. W. Cline, 498 Queen street east, Toronto, has sold his business to John R. Ross.

J. B. Stauffer has purchased the drug business of J. Lucas, 148 Avenue Road, Toronto.

R. C. Hewston has purchased the drug business of R. F. Greer, corner Queen and Elizabeth streets, Toronto.

The drug store of the Pharmacie Nationale, Montreal, has been sold, at 25 cents on the dollar, to Dr. Giroux.

The stock of the insolvent estate of John G. Douglas, druggist and bookseller, Southampton, Ont., was sold Aug. 29th.

J. A. Mitchell has opened a new drug store at the corner of King west and Niagara streets, in the premises formerly occupied by Mr. Urquhart.

The twenty-second annual meeting of the National Wholesale Druggists' Association of the United States will be held at Philadelphia, October 5th to 9th.

The O. & W. Thum Co. are adding 26,600 square feet of floor space to their Tanglefoot plant in order to keep up with the increased demand for their product.

We are pleased to learn that S. Lachance, of Montreal, who was in financial trouble through underserving for a wholesale dry goods firm, has effected a satisfactory settlement.

The Scott & Macmillan Co., a joint stock company for the manufacture of perfumery, pharmaceutical preparations, etc., are successors to the firm of Scott & Macmillan, 14 and 16 Mincing Lane, Toronto.

The Holgate, Fielding Co., Limited, with a capital of \$20,000, has been incorporated, and has opened an office at 25 Melinda street, Toronto, Ont. Mr. W. J. Fielding, formerly with the Keasby & Mattison Co., of Ambler, Pa., is manager, and Mr. F. H. Holgate, proprietor of the retail drug establishment of Hooper & Co., is secretary-treasurer. This firm will represent Keasby & Mattison, the New York Quinine and Chemical Co., W. H. Johns & Co., and other manufacturers.

Montreal Notes.

The twenty-ninth session of the Montreal College of Pharmacy will open at the College Hall, 595 LaGauchetiere street, on Thursday, October 1, at 8.30 p.m. The lectures will be delivered by Dr. T. D. Reed, Mr. J. E. W. Lecours, Mr. Joseph Benrose, F.C.S., Professor C. A. Pfister, and Mr. Joseph E. Morrison.

It remains to be said that Mr. E. Muir, secretary and registrar of the Pharmaceutical Association, was most indefatigable in his efforts to make the recent convention a success.

Mr. S. Lachance, pharmacist, St. Catherine street east, has, according to the *Journal of Commerce*, effected a settlement with his creditors, on time. Mr. Lachance will continue business as usual.

M. G. Edson & Co., manufacturers of essences, chocolates, and specialties, are, according to the same authority, trying to make a compromise with their creditors. Mr. Edson is an old pharmacist, and was doing a fair business as a manufacturer, but, like a good many others, has had to go under owing to difficulty of collecting accounts.

Mr. Pierre de Mesle, pharmacist, 1243 St. Lawrence Main street, has made an assignment on demand of Mr. R. de Mesle, with liabilities of about \$5,000. Meeting of creditors was held on the 29th ult.

Business in the drug line is a little better in Montreal since the return of people from their summering in the country. Everyone is complaining, and the tendency is to spend five or ten cents where fifty cents was spent in the good old times.

Mr. Tufts, the late soda water apparatus maker, has instituted a heavy action here against a pharmacist for the balance due (some \$12 or \$14) on a fountain. If such is really the balance unpaid, what did the fountain originally cost, and how could any unfortunate pharmacist ever expect to pay for such an expensive luxury out of his profits?

Dr. T. D. Reed, Dean of the Faculty of the Montreal College of Pharmacy, read a very able paper on pharmaceutical education at the recent convention held here. His views with regard to the ultra-scientific education advocated for pharmacists are very favorably commented on by Montreal pharmacists.

The consensus of opinion in Montreal with regard to the recent annual convention of the American Pharmaceutical Association appears to be that the meeting was not quite so successful as it might have been. In the first place, it was unfortunate that the association was invited here during a period of great business depression; and in the second place, the local pharmacists were not enthused, owing to the entire absence of tact on the part of those who had the management of the affair.

Manitoba Notes

Mr. G. W. McLaren, of Morden, has just returned from a visit to Eastern Canada.

D. D. McQueen, M.D., of Cypress River, has purchased his stock for a new drug store at that point.

Dr. S. B. Cowan, proprietor of a drug store in Portage la Prairie, was in Winnipeg for a few days last week.

Mr. R. A. Webster, of the Canada Paint Company, Montreal, spent a few days in Winnipeg week before last, and left for a visit to southern cities with his friend, Mr. L. W. Leithhead.

Dr. Macklin, for many years a resident of Portage la Prairie and late of Winnipeg, has removed to Roland, a thriving little town in southern Manitoba, where he has opened a drug store in connection with his practice.

Mr. Joseph Taylor, of Portage la Prairie, has just returned from an extended trip to the Kootenay mining district. He confirms all that has been said regarding the wealth and ultimate value of this district to Western Canada.

Mr. James R. Wynne, vice-president of the Martin, Bole & Wynne Co., and Mr. W. P. Inman, of Winnipeg, attended the recent annual rifle matches of the Dominion Rifle Association at Ottawa. Mr. Wynne will visit Montreal, New York, and Boston before his return.

Mr. Charles McDonald, who for some time occupied a position in Mr. Pulford's drug store in Winnipeg, has opened up a drug store at Virden, Man. Mr. McDonald's home is in Virden, and being well and favorably known in that district he will no doubt be successful in his new venture.

Mr. Harry Mitchell, a graduate of the Ontario College of Pharmacy, and a son of Mr. W. J. Mitchell, now of Toronto, has opened a drug business at Prince Albert, N.W.T. Harry's many friends in Winnipeg will anticipate with much pleasure his success in the Northwest. He will be greatly missed in football circles, in which he was very popular.

Mr. L. W. Leithhead, formerly of Montreal, and for the last five years a resident of Winnipeg, and a member of the Martin, Bole & Wynne Company, severed his connection with that firm on the 1st of September. A few days previous to his departure he was quietly called into the laboratory of the company, the scene of his labors during his connection with the firm, and there presented by the employees of the company with an illuminated address and a handsome gold-headed walking cane, an evidence of the esteem and regard with which he was held by the employees of the company. Mr. Leithhead will take up his residence in Duluth, Minnesota, where he enters the Sogar Drug Company as chemist and manager of the warehouse of the company. His many friends, both in Montreal and Winnipeg, will extend to him their best wishes for his success in the great republic.

Pharmacy in England.

British Pharmaceutical Conference—Abstract of Papers Novelties at the British Medical Association Exhibition—The Chemists' Exhibition—Examination Questions and Answers.

(From Our Own Correspondent.)

Liverpool was revisited by the conference this year, after an interval of twenty-six years, and Mr. William Martindale, F.C.S., was president for the second time. A declining membership is still noticeable, and as a direct result of this the amount spent upon the "Year Book" is to be cut down. But the tendency to increase the social features of the annual gathering is more likely to attract the younger members of the trade than the development of a more scientific pabulum. In this respect the second Liverpool meeting has been a greater success than usual, and the dropping off in the value of the papers was therefore hardly noticed. Mr. Martindale's address was largely retrospective, and contained many shrewd suggestions based on his ripe experience. Briefly reviewing the papers we may note that no conference meeting could now be considered complete without some contribution from Farr and Wright. This year hemlock was reinvestigated, and the conclusions of former workers that only the green fruit should be retained and preparations of it alone be official were confirmed. They also gave percentage of alkaloids in the official juices, and showed, what everyone knew before, that they vary enormously in strength. For many years they have been steadily declining in British pharmacy, succus tarax and succus scoparii being only occasionally prescribed, succus conii rarely, and the others never. R. Wright also gave a note on the method of preparing solution of arsenium and bromide of gold, which differs from the national formulary, but seems no improvement. Umney gave two papers on essential oils, the first on oil of Japanese fennel, which does not seem to differ much from European oil; the second on the effect of climate and soil on oils of peppermint. C. T. Tyler gave evidence that a stronger hydrobromic acid than 1.250 S.G. is not satisfactory, as it attacks glass, and is liable to turn red brown in color. He also contended that the B.P.C. method for making hypophosphorus acid was superior to the national formulary. Naylor and Littlefield have separated cascarrillin from cascarrilla by two different methods, and concluded that its formula is $C_{16}H_{21}O_5$; they are not prepared to call it an alkaloid, although it yields precipitates with most alkaloid reagents. Parker showed that the finer powder of belladonna root yields less alkaloid than the coarse. Allen gave interesting notes on white wine vinegar and condensed milk, from the public analyst's point of view. Elborne, as usual, made some queer suggestions, that were received with polite derision: his attempt to improve the pronunciation of the word pharmacognosy being most unfortunate. Bird's contribution upon the

subject of formaldehyde as a preservative was practical and interesting, although its principal features were not new. As a preservative of milk, cream, lime juice, and many other articles, formaldehyde is daily growing in favor. Liquid extract of bael is hardly used in English practice of medicine, but it is still a favorite remedy for dysentery in tropical climates, and A. C. Abraham's practical note will probably be incorporated in the new B.P., should it be decided to retain this preparation. Ferret gave a formula for essence of rennet that is guaranteed to keep clear and good, and as it is the result of direct experiments it will probably be found useful. Some people, however, raise objection to the presence of salt in this essence. Of course, the X rays came in for a special paper, and a demonstration with a tablet machine carried out a suggestion made in these pages several years ago, viz., that a small machine is a useful adjunct to the dispensing counter, and would soon repay its outlay. The excursions were very enjoyable and included a trip to Chester, Eaton Hall (the seat of the Duke of Westminster), and Hawarden Castle, where a deputation had the honor of an interview with the ex-premier, Mr. Gladstone.

Novelties at the annual museum of the British Medical Association, held at Carlisle, were almost conspicuous by their absence. Roentgen's apparatus in all sizes was, perhaps, the most attractive item, and at least half a dozen firms were exhibiting these. England seems to have taken up skiagraphs with more than usual celerity, and so far our instrument and scientific apparatus makers are in advance of their continental competitors. Prices, however, are rather high, varying from \$50 to \$250. For the latter sum a complete coil, giving a six-inch spark, requiring only a fraction of a minute exposure, special vacuum tube, dark slide, cryptoscope, etc., are provided. "Ovoids" are neat little aural suppositories, containing the various remedies suggested by otologists, and introduced by Brady & Martin. A new method of practical illustration was introduced by Burroughs, Wellcome & Co., a live sheep in a cage to represent the origin of lanoline, and some moribund codfish in a tank, and a stray sheaf of barley, signifying the Kepler extract of malt and cod-liver oil. This was treated as a good joke, but it would become rather a nuisance if everybody followed suit and illustrated their wares in the same manner. Apart from this, B. W. & Co.'s exhibit was easily first, both in elegance and originality. Compressed tablets were the principal feature, and the new organic animal remedies are yielding themselves well to this form of administration. Oppenheimer, Son & Co. have some new developments of their "palatinoids," permanganate of potash being put up in this form, so as to make a detergent solution when the contents are turned into water. In this case the jujube envelope is not dis-

solved, or it would tend to reduce the permanganate. New remedies, such as eucaine hydrochlorate, airol, tannatorm, erythrol, colchicine salicylate, chinisol, eudoxine, symphorol, etc., were in evidence. "Alapurin" is the name given to the purest form of wool-fat that the N. W. K. Company have yet produced. Among newer pharmaceutical combinations were extract of malt with milk and hypophosphites, petroleum emulsions with pepsin, phenate of soda combinations, compound senecio mixture, etc., and a sulphuric lemonade recommended specially for cholera. Next year the B.M.A. meets at Montreal, and it would be a favorable opportunity for Canadian houses to take up agencies, etc., of English houses, so that the latter may still be represented in a part of Greater Britain.

The Chemists' Exhibition is now open at the National Skating Palace, Oxford street, London, and from a visit I paid yesterday I am inclined to think that it will be an improvement on that of last year. It is organized by the *British and Colonial Druggist*, and over 100 firms are exhibiting, whilst the central position of the theatre, its attractive decorations and the compact arrangements generally, should ensure success. A large number of provincial chemists have attended, as the journal has some 800 shareholders in the trade, and special inducements were offered to them to attend. The chemists' sundries houses, like Maw, Son & Thompson; Barclay; Sanger; Hockin, Wilson & Co., have, perhaps, the best opportunity for display, as their cut-glass goods with plated tops, etc., look very attractive under the rays of the electric light. Wholesale druggists and manufacturing chemists are represented by many of those firms who were exhibiting last month to the doctors. The exhibition remains open for a week, and as the hour of closing is not until 10.30 p.m. there is plenty of opportunity for suburban druggists to attend. There is also a good sprinkling of nurses, medical men, and the public, the Ladies' Hungarian Band being a constant delight. As I have had to report the Medical Exhibition in this article, I propose holding over to my next letter the notes I have made of novelties at the Chemists' Exhibition.

The latest joke from the examination room at Bloomsbury Square is stated to be as follows: A youth was shown a single tuber of jalap, and, on being asked what it was, remarked that it was a monocotyledon! The examiner, scenting something good, immediately produced some tubers clustered together, a couple, and a bunch of three, with the charming result that the candidate said that the couple was a dicotyledon, and he supposed the three to be a tricotyledon!

Tincture of horse-chestnut in doses of ten drops daily is said to be an infallible cure for hemorrhoids.

Pill and Powder BOXES

We are the headquarters in Canada for every line of Druggists' Boxes, Labelled or Unlabelled.

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Our Impervious Paper Boxes are the best on the market.

LAWSON & JONES

LONDON, CANADA.

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**Somerville's
Pepsin
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It is the Gum the others are selling.

It is admitted to be the best Pepsin Gum made in Canada.

Our Carving Set Premium Packages are having a great sale.

C. R. SOMERVILLE

LONDON, ONT.



For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

£17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at \$1.00. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.



CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and \$1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

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To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton and London, Ont., and Winnipeg, Man.

ELLIOT'S "B" PARCHMENT PAPER

is one of the articles to be considered in the practice of "elegant pharmacy," as it furnishes the finest transparent wrappers for bottles, packages, etc. It must be seen and tried to be appreciated. We send samples.

ELLIOT'S PARCHMENT POWDER PAPERS

are the best for hygroscopic powders and all other powders. The following prices show they are the cheapest:— Put up in Neat Boxes of 500 Sheets.

No.	Rm.	No.	Rm.
22	For Magnesia and general use,	31	Large Seidlitz, Blue, 6 x 6, \$0.50
	White, 6 x 8	40	Powder Papers, White, 2 1/2 x 4, 25
28	Regular Seidlitz, White, 4 1/2 x 5 1/4, 40	41	Powder " " 3 x 4 1/2, 20
29	Regular " Blue, 4 1/2 x 5 1/4, 40	42	Powder " " 2 3/4 x 3 1/4, 25
30	Large " White, 6 x 6, 50	43	Powder " " 3 1/4 x 4 1/2, 25

SEND FOR SAMPLES. Elliot's Parchments are for sale by the leading jobbers. We also make heavy Parchment for Sticky Fly Paper, and Druggists' Pure Tin Foil.

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MAJORS CEMENT

CHEAP, QUICK, AND CERTAIN.

Repairs China, Glassware, Meerschaum, Bric-a-Brac, to put on cloth, corn and bunion plasters; to hold a bandage on a wound or sore finger. 15c., 25c.

Major's Rubber Cement, 2-oz. bottle, or in collapsible tubes, for repairing rubber boots and shoes, bicycle tires, rubber garments, silk umbrellas, etc. 15c.

Major's Leather Cement repairs boots and shoes, garments and umbrellas of all kinds of material except rubber, applied same as on leather goods. 15c.

Major's Liquid Glue repairs furniture, books. 10c.

●●●

KERRY, WATSON & CO.,

351 St. Paul Street,

Sole agents for the Dominion. MONTREAL, Canada

Wampole's

BEEF, WINE, AND IRON.

In Pint Bottles.....\$5 00 per doz.

Winchester (1/2 Imp. Gal.)..... 2 00 each.

Imp. Gallon, in 5 gal. lots, and over 3 50 per gal.

With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

1/4 Gross lots, and over.....\$60 00 per gross.
(Packed in One-Dozen Cases.)

We use a Pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

We invite comparison with other manufacturers, and will cheerfully furnish samples for that purpose.

Your early orders and enquiries solicited through Wholesale Jobbers or direct from us.

Henry K. Wampole & Co.,

MANUFACTURING PHARMACISTS,

Philadelphia, Pa.

Canadian Branch:

36 and 38 Lombard Street, TORONTO.

BRUSHES

Hair and Cloth

Tooth and Nail

TEN CASES NEW GOODS JUST IN
WRITE US FOR SAMPLES AND PRICES

MEAKINS & COMPANY

Brush Manufacturers

313 St. Paul Street, - Montreal.

Sovereign . . Lime Fruit Juice

Is the Strongest, Purest, and of Finest Flavor

We are the largest refiners of LIME JUICE
in America, and solicit enquiries.

For Sale in Barrels, Demijohns, and twenty-four ounce Bottles
by wholesale in

TORONTO, HAMILTON, KINGSTON, AND WINNIPEG

SIMSON BROS. & CO., Wholesale Druggists

HALIFAX, N.S.



Sick Men Smile



after trying the one
great sure-to-help,
pleasant, and sus-
taining strengthener.

Wilson's Invalids' Port

The big bracing tonic.

Physicians swear by it—Sick men
recover by it.

For Sale Everywhere.

75C. PER QUART BOTTLE

AGENTS FOR CANADA:

BORDEAUX CLARET CO.

30 Hospital Street, Montreal.

Wholesale Drug and Proprietary Medicine Association.

The first annual meeting of this association was held in Montreal, August 20th, with a good representation of members. As the business transacted at these meetings is principally in reference to matters pertaining to the governance of the wholesale trade, in the way of uniformity in prices, terms of credit, etc., its proceedings are not supposed to be of general interest to the trade, and consequently no report can be given. Sufficient has been gleaned, however, to know that the formation of the association has been a decided benefit to the wholesale trade, in that it has brought the individual members in closer contact and established a feeling of confidence, which tends to facilitate and strengthen any efforts made for the advancement of their interests. As with the retail trade, so it has been amongst jobbers, there has been a tendency to cut prices and to grant concessions which the present cost of transacting business, and the comparatively small margin in many cases, did not warrant. The fact also that some houses, in their anxiety to do business, started men in the retail trade who had little or no capital showed a tendency to speculate, which must, and in the majority of cases has, prove disastrous to the promoter. These are some of the features in connection with the trade with which the wholesale association may very properly deal, and we trust that any effort it may put forth in the way of righting any abuses that have crept into their ranks will meet with success.

The officers for the past year were all re-elected by acclamation and are as follows:

President, Mr. John Henderson, Toronto; vice-presidents, Mr. D. Watson, Montreal, Mr. G. Rutherford, Hamilton; secretary-treasurer, Mr. C. McD. Hay, Toronto.

Correspondence.

The Editor does not hold himself responsible for the opinions of correspondents. Correspondents must in all cases send name and address, not necessarily for publication.

What a Druggist Has to Know

Editor CANADIAN DRUGGIST:

DEAR SIR,—Enclosed please find a copy of a few "things a druggist has got to know":

"2 dl Caledonia plasters."

"Oxhide of niter, enough to draw two teeth."

"5 cents' worth powdered divers."

"1/4 worth carbolick pills."

The hieroglyphic dl stands for D. & L.

Yours truly,

EDMUND JENNER,

Druggist.

Sherbrooke, N.S., August 24, 1896.

Answers to Correspondents.

A communication without signature attached has been received, dated Toronto, Aug. 20th. We must call our correspondent's attention to our invariable rule: *All communications must be accompanied by the name of the writer*—not necessarily for publication. The writer in this case propounds queries as to the usefulness of the O.C.P., and asks, "What will be the result if 500 or 800 druggists refuse to pay their annual fee?" If he wishes to ascertain the result, no doubt he can do so very quickly, as the law would probably be put in force which demands payment.

L.D.C.—The following is recommended as a reliable

WORM SYRUP.

Fl. Extract Spigelia 5 fl. ozs.
Fl. Extract Senna 3 fl. ozs.
Oil Anise 10 min.
Oil Caraway 10 min.
Syrup 8 fl. ozs.

Label: Teaspoonful at intervals until purging ensues.

The New President.

Mr. J. E. Morrison, the newly-elected president of the American Pharmaceutical Association, was born in Waterford, Ireland, in the year 1862. Coming to Canada while young, he was educated at the High School of Quebec. He began the work of pharmacy in 1877, and, having attended lectures in Laval University, passed his final examinations in 1882.



J. E. MORRISON,

President, American Pharmaceutical Association.

He then visited the United States, where he spent some time acquiring a knowledge of the methods there, and in 1884 started in business in Quebec city, where he remained until 1893, when he moved to Montreal.

Mr. Morrison, who has been for many years prominently identified with pharmacy in the Province of Quebec, has been a member of the council, and was for two consecutive years first vice-president. For four years he was preliminary examiner, and for several years examiner in chemistry. It was owing to the energy

displayed by Mr. Morrison at the last three conventions that the Pharmaceutical Association of America was induced to visit Montreal on this occasion. Those who know Mr. Morrison are well assured that the office of president will be worthily upheld by him, and that the association will lose nothing by having at its head one so well qualified to look after its interest in every way.

Action of Light upon Pharmaceutical Products.

By PROF. A. B. STEVENS, Department of Pharmacy of the University of Michigan, Ann Arbor, Mich.

As we passed through chemical laboratories or dispensing pharmacies, the question arises, "How many pharmacists understand the wondrous action of light, or, if they understand, how many consider its action upon their pharmaceutical products?"

Few pharmacists pause and consider the effects produced upon the substances in their shelf bottles, which, day after day, and sometimes month after month, are exposed not only to the action of light, but often of strong sunlight, constantly modifying, frequently impairing, and in many cases absolutely destroying, the therapeutic value of the drug. Immerse a bit of white paper in strong sunlight for a few hours, compare with one that has been carefully protected from the light's action, observe the change, and consider the changes produced by this agent upon similar organic bodies. It is in obedience to this law of change that the thrifty housewife carefully excludes the midday sun from rugs and draperies.

Realizing the action of this powerful agent, the U.S.P. Committee on Revisions directed that nearly one hundred preparations should be protected. In view of the fact that these important pharmacopoeial directions are so frequently overlooked or ignored by pharmacists, the following list from the U.S.P., together with comments upon some of the most important preparations, is here given, in the hope that it may impress upon the minds of at least the younger members of the profession the necessity of a careful protection of these sensitive materials.

ARTICLES AFFECTED BY LIGHT.

Benzoic acid should be kept in dark amber-colored, well-stoppered bottles, in a cold place.

Carbolic acid should be kept in dark amber-colored, well stoppered vials.

Hydrobromic acid should be kept in glass-stoppered bottles, protected from the light.

Hydrochloric acid, nitric acid, nitric acid dilute, and nitro-hydrochloric acid should be kept in dark amber-colored, glass stoppered bottles.

Nitro-hydrochloric acid should be kept in dark amber-colored, glass-stoppered bottles, which should not be more than half filled, and kept in a cool place.

Hydrocyanic acid dilute should be kept in small amber-colored, cork-stoppered vials, in a cool place.

Sulphurous acid should be kept in dark amber-colored, glass-stoppered bottles, in a cool place protected from light.

Formic acid is darkened by the action of light and air.

Acetic ether should be kept in a cool, dark place.

Ammonium iodide should be kept in small, well-stoppered vials, protected from light.

Amyl nitrite should be kept in small dark amber-colored, glass-stoppered vials, in a cool and dark place.

Sulphurated antimony, keep in well-stoppered bottles, protected from light.

Apomorphine hydrochlorate, keep in dark amber-colored vials.

Stronger orange-flower water should be kept in loosely-stoppered bottles, in a dark place.

Chlorine water should be made fresh, but when kept should be protected from light and air.

Stronger rose water should be kept in a dark place.

Silver cyanide, iodide, nitrate, diluted nitrate, moulded nitrate and oxide should be kept in dark amber-colored vials, protected from the light.

Arsenic iodide should be kept in glass-stoppered vials protected from light.

Bismuth and ammonium citrate, keep in well-stoppered bottles, protected from light.

Chloral and chloroform should be kept in glass-stoppered bottles, in a cool, dark place.

Ferric citrate, iron and ammonia citrate, iron and ammonia tartrate, iron and potassium tartrate, iron and quinine citrate, soluble iron and quinine citrate, iron and strychnine citrate, should be kept in well-stoppered bottles, protected from the light.

Saccharated ferrous iodide should be kept in a cool and dark place.

Soluble ferric phosphate and pyrophosphate should be kept in dark amber, stoppered bottles.

Iron valerianate in a cool, dark place.

Mild mercurous chloride and mercuric cyanide should be kept in dark amber-colored bottles.

Yellow mercurous iodide should be kept in amber-colored bottles with the least possible exposure to light.

Red mercuric iodide, yellow mercuric oxide, red mercuric oxide, yellow mercuric sulphate, ammoniated mercury and mercury with chalk are to be protected from light.

Iodoform, solution ferric acetate, solution of chlorinated soda and methyl salicylate are to be kept in a cool place, protected from light.

Naphthol, keep in dark amber-colored bottles.

Volatile oils, 23 are directed to be kept in cool places, protected from light.

Physostigmine salicylate and sulphate should be kept in small dark amber-colored vials.

Lead iodide is to be protected from light.

Pyrogallol, keep in dark amber-colored vials.

All of the quinine salts should be kept in a dark place.

Resorcin and santonin should be kept in dark amber-colored vials.

Sodium salicylate, protect from heat and light.

Spirit of nitrous ether in small dark amber-colored vials, in a cool place.

Spirit of phosphorus, keep in small dark amber-colored vials, in a cool, dark place.

Strontium iodide, keep in dark amber-colored, glass-stoppered vials.

Terebene should be kept in a cool place, protected from light.

Tincture of chloride of iron should be protected from light.

OTHER CHEMICALS ACTED UPON BY LIGHT.

The action of light upon silver compounds is a problem upon which a vast amount of study and investigation has been expended. Few investigators agree as to the actual compounds formed, but nearly all have proved that the action is one of reduction.

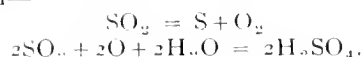
Silver chloride, when fused repeatedly, or until all traces of the nitrate or organic impurities are lost, is unaffected by light. M. de St. Victor discovered that paper coated with egg albumin and dipped in a solution of silver is far more sensitive than when used with the silver salt alone. At the present time silver salts are invariably associated with albumin, gelatin, or collodion in all photographic plates.

Chloral becomes acid on exposure to light and air.

Chloroform, when absolute and all air is excluded, is not acted upon by sunlight, but in the presence of air is rapidly decomposed. The presence of more than $1\frac{1}{2}$ per cent. of alcohol prevents decomposition; smaller quantities retard the action in proportion to the quantity present. In the absence of alcohol chlorine is liberated. In the presence of alcohol the chlorine is converted into hydrochloric acid.

Creosote, when pure, is not acted upon by light, but when a small quantity of tar oils is present light darkens it.

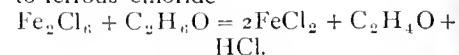
Sulphurous acid is decomposed by light, forming free sulphur and oxygen. The oxygen combines with a portion of the sulphurous acid to form sulphuric acid—



Hydrocyanic acid is decomposed by light and air, forming different substances under different conditions. The greatest care must be exercised to promote its preservation. The following is the method employed in the prescription department of one American School of Pharmacy. A block of wood whose dimensions are 2 by 2½ by 6 inches is procured. Eight holes of sufficient size that each will accommodate a dram vial are bored in this block. The vials, filled with freshly made hydro-

cyanic acid, are corked, placed in the holes prepared to receive them, and the holes closed with corks. When a prescription requiring this acid is received, the acid is taken from one of the vials, and should any acid remain in the opened vial it is thrown away. This method insures fresh acid for each prescription.

Ferric salts.—Inorganic ferric salts, when pure, are stable, but when associated with organic compounds they are invariably reduced to ferrous compounds by the action of light. For example, ferric chloride and the solution of ferric chloride are unaffected by light, while the alcoholic tincture of the solution is partly reduced to ferrous chloride—



Hence the U.S.P. directs that it shall be protected. Many of the ferric salts with organic acids are so sensitive to the action of light that they are used for photographic printing. The cyanotypes, or blue prints, are made by exposing paper coated with a solution of ammonio ferric tartrate, and placed under a negative to the action of sunlight. When the iron is reduced to a ferrous condition, the paper is floated upon a solution of potassium ferricyanide, forming ferrous ferricyanide. The kallitype printing process is based upon the reduction of ferric oxalate to ferrous oxalate by light. Sodium ferric oxalate acts in a similar manner, producing an orange-colored image, which is developed with a solution containing silver nitrate.

Mercurous chloride, when in the dark, is not acted upon by the air. Exposed to light it gradually darkens, indicating partial reduction.

Mercuric cyanide is affected in a similar manner.

Mercurous iodide is easily decomposed by light into mercuric iodide and mercury. Mercuric oxides, both red and yellow, are partially reduced by light.

Iodoform is decomposed by sunlight with the liberation of iodine.

Volatile oils are easily decomposed, and even alcoholic solutions are easily affected by the same agent. Therefore not only volatile oils, but perfumes also should be protected.

The ornamental display of perfumes in clear glass bottles upon the case or shelves is a mistake. Exclude the light from them and their quality will be their best advertiser.

Spiritus ætheris nitrosi rapidly decomposes under the action of light and air, becoming acid. Samples have been found that had decomposed and refused to give a test for ethyl nitrite.

Syrup of ferrous iodide which has oxidized by the action of air may be completely reduced to the ferrous condition by exposure to sunlight. It has been suggested that an acid ferric salt might be formed in the sunlight. This, however, is not the case, as a small sample exposed to sunlight for a period of six months refused to yield more than the faintest ferric test.—*Phi Chi Communicator*.

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Is by well written, attractive advertising notices

I WRITE THEM**SAMPLES
FREE**When sending for samples be
sure to send full particulars of
what you wish advertisedAdvertising Pamphlets, Booklets,
Circulars, Dodgers, etc., a specialty
Write for terms mentioning size of
page and number of pages wanted

W. T. MURRAY,

24 Adelaide Street East, Toronto

Room 20, Equity Chambers

BIRD**SEED**Is put up by us in attractive 1 lb. pack-
ages. Each package contains a five-cent
cake of "Bird Treat" and piece of cuttle-
fish bone.It is well advertised, and sells readily at
10 cents, leaving retailers large profit.Sold in 24 lb. and 35 lb. cases by all
wholesalers, or**NICHOLSON & BROCK**

Colborne Street - Toronto, Ont.

"THE LANCET," "BRITISH MEDICAL JOURNAL," and "THE OPTICIAN,"
strongly recommend**DENTONS' New Patent "Acme" Lens-
Front Clinical Thermometer**STILL MORE EASY TO READ.
INDEX AND SCALE IN THE SAME PLANE.
WILL NOT ROLL.
INDELIBLE ENGRAVING

WHOLESALE ONLY AT

25a Hatton Garden, London, England.

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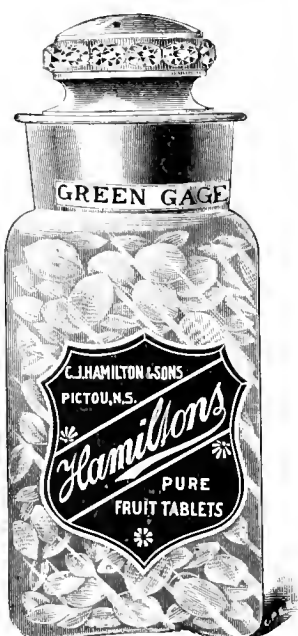
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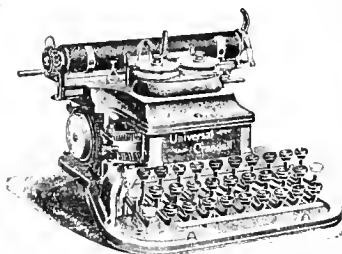
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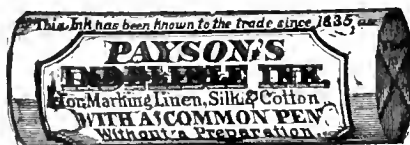
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Taraxacin.

By L. E. SAYRE, Member of Research Committee of the American Pharmaceutical Association.

Continuing the investigation recorded in the preceding volumes of this association, '93, '94, and '95, I have this year devoted my time specially to the study of the bitter principle taraxacin. In a former paper it was stated that the difficulty in isolating the active principle lay in the separation of it from the extraneous matter with which it seemed to be always contaminated. It was stated that all attempts to obtain the bitter principle in a crystalline form, free from admixture with the brownish red extractive, had been unsuccessful, and it was my opinion that all former reports of taraxacin in analyses were only the crude bitter principle containing this extractive. The colorless solutions of the principle on evaporation separate resin-like globules at first, which, when evaporated to the solid condition, now and then show needle-like crystals, intermingled with the above mentioned extraneous matter (?). Whether these crystals, or uncrystallizable amorphous globules, were actually the bitter principle was a question. This problem has been one with which I have wrestled during the past year.

Before stating the results of this work it may be well to go briefly into the history of the principle itself. In 1839 an article appeared by Gustav Polex,* "Ueber das Lowenzahnbitte" (Taraxacin) in *Archiv. der Pharmacie*, second series, Vol. xx., page 50, in which he states that he obtained the bitter principle in crystalline form by extracting the milky juice in distilled water. By this means the albuminous substances were coagulated, carrying with them the resin, fatty matter, and caoutchouc, filtering the concentrated liquor, and allowing it to evaporate spontaneously in a warm place. The crude crystals were recrystallized from alcohol or water. It would form thus arborescent or star-shaped crystals. These were reported as melting readily, non-volatile, having a bitter and rather acid taste, sparingly soluble in cold water, readily soluble in boiling water, alcohol and ether, soluble in concentrated acids without decomposition; containing no nitrogen. He classed it with the neutral principles.

I have gone over the ground of Polex myself, and have concluded, as did Kromayer in 1861, that the crystals obtained by Polex did not represent the bitter principle. My opinion is that they were a mixture of various substances, included in which was the taraxacerin of Kromayer, of which I will speak later.

*Gustav Polex appears to have been one of the early pioneers in Plant Chemistry. He published articles about the year 1839, as below tabulated:

Berberin, *Archiv. der Pharm.*, Second Series, Vol. vi., p. 265-281.

Cheledonin and Pyrrhopin, *Archiv. der Pharm.*, Second Series, Vol. xvi., p. 77.

Ligustrin, *Archiv. der Pharm.*, Second Series, Vol. xviii., pp. 75.

Cicutin, *Archiv. der Pharm.*, Second Series, Vol. xviii., p. 174.

Taraxacin, *Archiv. der Pharm.*, Second Series, Vol. xx., p. 50.

Most of the books refer to this and Kromayer's work somewhat confusedly.

The arborescent and stellate forms from the milky juice of Polex have been obtained, but on purification of these I have found that the bitter substance separated from them is not crystalline, leaving behind material which is to some extent inorganic. Kromayer, in *Archiv. der Pharmacie*, 1861, p. 6, 105 and 106, second series, is quoted by the editor of that journal, L. F. Bley, as having been unsuccessful in obtaining the bitter principle. He seems to have gone over Polex's work.

Abstracting this article* the editor says: "Fresh root gave, upon treatment with water, fermentable sugar and inulin. In the same were found chiefly sodium chloride and potassium nitrate. From both with mixed extract crystallizations were obtained, which represented, apparently, Polex's taraxacin, although the isolation of it did not succeed. One experiment to separate the milky juice from the fresh roots gave only 9 grammes yield. The dried juice had an acid reaction, while the milky juice, upon separation, was neutral. The author calls this leontodonium. It was dissolved in water, treated with animal charcoal, and this taken up with alcohol. The same evaporated contained crystals; was dissolved in water and precipitated with lead subacetate. The precipitate gave upon decomposition only a flat tasting syrup. From the principle leontodonium, insoluble in water, a bitter solution was obtained with alcohol, which, upon concentration, separated round, tasteless kernels, showing these free from nitrogen. The ultimate analysis gave C 74.444; H 12.686; O 12.870. Kromayer calls this material "taraxacerin." This would seem to be a poor representation of Kromayer's work (see footnote). Looking over the current publications, text-books, etc., I find that published statements of taraxacin rest upon the actual work of Polex in 1839, and upon a confusion between taraxacin, bitter, and taraxacerin, tasteless, of Kromayer. Not infrequently do we see attached to the term taraxacin the statement of its ultimate composition, as, in a text-book on

*Kromayer's fullest publication on taraxacin is found in the publication of a monograph on a prize subject under the German Apothecaries' Union, of which *Archiv. Pharm.* is the organ. The prize research was upon bitter principles at large; the monograph was purchased by Dr. Prescott; from this I make the following translation on taraxacin: "I tried to separate the taraxacin from the root and the fresh milky juice, but secured it only as an amorphous principle. The milky juice has a neutral reaction in its fresh condition, but assumes soon an acid character, while it stiffens to a friable mass, which soon turns brown (leontodonium). In this respect it shows much similarity to the milky juice of *Lactuca* varieties, and contains also a body (similar to the lactucerin) taraxacerin."

According to my researches on taraxacin the freshly collected leontodonium is repeatedly extracted with hot water till the remainder no longer tastes bitter. The collected washings are treated with animal charcoal, and from the latter the bitter principle is extracted with alcohol. The alcoholic solution is distilled and the residue is precipitated with lead subacetate, and the lead removed by H_2S , and evaporated on a water-bath. The colorless very bitter mass which remains is treated with ether, whereby an acid resin is dissolved. The insoluble portion presents a colorless, very bitter amorphous mass, which in its property corresponds to the taraxacin of Polex. The part of leontodonium insoluble in water is almost completely soluble in strong boiling alcohol. Upon long evaporation of the alcoholic solution warty aggregations of taraxacerin are separated, which, upon repeated solution in alcohol and slow evaporation, can be secured dazzlingly white. Dried at 100 degrees C., it corresponds to the formula $C_{40}H_{14}O_7$.—August Kromayer, Die Bitterstoffe und Kratzend-Schmeckenden Substanzen, 1861.

pharmacy, which is very frequently consulted, the statement is made that "taraxacin owes its bitterness to taraxacin, $C_{40}H_{14}O_7$." Now, the fact is, there has never been a combustion made of this principle, and it is a question in my mind whether the principle has ever been crystallized. Those who will take the trouble to go over the literature, a bibliography of which is appended hereto, I think, will agree with me in this statement.

It remains for me to state the work of the past year upon this subject in my own laboratory, the results of which, I am pleased to state, seem to be quite promising. Fifty pounds of drug were extracted with chloroform, the chloroform allowed to evaporate spontaneously until a solid or semi-solid extract was left behind. Small portions of this extractive were taken, and several rather unsystematic analyses were made. Data of all the work were carefully recorded, all new developments were carefully studied, in order that a process might be reached for the isolation of the active principle. By the time an amount of fluid representing 25 lbs. was exhausted, sufficient data had been collected to conduct an analysis in a satisfactory manner. The chloroformic extract was macerated for several days in 500 c.c. of alcohol, with occasional agitation. The liquid was then decanted, and the residue marked "A" washed with alcohol until free from bitterness. The alcoholic solution was then evaporated (distilled) to about 100 c.c., and an equal volume of water gradually added, care being taken to avoid emulsifying the resin contained in the alcoholic solution. This treatment precipitated most of the resinous matter soluble in alcohol, which gathered in a soft, waxy mass at the bottom of the vessel. The supernatant liquid was then decanted, and the residue marked "B" was digested with successive portions of hot water until free from bitterness. These resins "A" and "B," with the bitter principle, correspond to what Kromayer, in 1861, called leontodonium.

The aqueous solution was evaporated to about 100 c.c., thus driving off all the alcohol and allowing the resinoid matter held in solution to deposit. The aqueous solution was then shaken with ether to remove all traces of resinoid matter. The ethereal washing, evaporated and redissolved in water, gave a very bitter solution, showing that the bitter principle adhered tenaciously to the resinous matter. The aqueous solution was evaporated to a solid, dissolved in alcohol, the alcoholic solution evaporated to a solid, the alcoholic extract dissolved in distilled water, again evaporated, again treated with alcohol, and in this way all proteid matter seemed to be gotten rid of. The aqueous extractive thus obtained represented the bitter principle; this was soluble in cold water, very soluble in hot water, in alcohol, ether, and chloroform, giving with water a straw-

colored solution, which was intensely bitter. From the aqueous, alcoholic, ethereal, and chloroformic solutions an attempt was made to crystallize the principle by spontaneous evaporation, evaporating in vacuo, etc., but all attempts at crystallization were unavailing. It was noticeable, however, that the gummy extractive which when allowed to deposit in thin film on crystallizing dishes showed under the microscope here and there acicular crystals of arborescent and stellate forms. How to account for these it seemed impossible; a theory suggested itself that it might be due to ammonium chloride from the laboratory fumes, which were absorbed in the aqueous solutions in some way. But on further examination this was proved not to be the case. Finally, after a number of unsuccessful experiments upon this subject, it occurred that these crystals might be due to a process of oxidation. The gummy, bitter, uncrystallizable substance was then dissolved in peroxide of hydrogen and allowed to evaporate. Upon examining the extractive from the evaporation of this solution, it was found that the number of crystals had increased enormously, but that not all the extractive had been converted into crystals. The residue was repeatedly dissolved in peroxide of hydrogen, and by this process the whole mass was converted into crystalline form. Another portion of extractive was dissolved in diluted nitric acid, and on evaporation of this solution a solid mass of crystals, free from extractive matter, was obtained. As a name for this derivative of taraxacin, I at that time believed taraxacic acid would be appropriate. Quite a quantity of this was made, and some of it very pure and white. The method used was as follows: The impure bitter substance was heated on a water-bath with dilute nitric acid for some hours, the solution evaporated, and water added: the acid solution filtered, and to it lead acetate was added, which precipitated the acid as a very insoluble lead salt. After washing this salt in distilled water it was suspended in distilled water and treated with H_2S . The filtered solution was then evaporated. The acid then crystallizes out in long, white needles, or in short prisms.

It was believed then that this result of forming an acid from bitter principle by oxidation indicated an easy, practical method of standardizing taraxacum root; the process being to convert the bitter principle into the acid and weigh it as a lead salt. But, to my disappointment, on further studying this acid, by observing its crystalline form, solubility in different solvents, by its behavior when heated to determine its melting point, by sublimation, etc.—to my disappointment this crystalline substance was thus identified as oxalic acid, the oxidation product of so many organic compounds. Whether any of the salts of this acid—obtaining it by the oxidation of taraxacin—could be used as means of assaying the drug or not depends on whether or not there is anything

else in this extractive, called taraxacin, which will yield oxalic acid when oxidized, and whether the ratio of bitter principle to acid is constant. These things can only be determined by experiment, but of success in this direction I have little hope, because of the many chances of error involved. Of course, if we have found that the crystalline oxidation product is oxalic acid, we would use the calcium salt instead of the lead for its estimation.

It was stated by Polex and by Kromayer that the bitter principle of taraxacin was wholly indifferent to chemical reagents. I have found the bitter principle to be quite different from this in characteristic. It is extremely sensitive to all the alkaloidal reagents; phosphomolybdic and phosphotungstic acids, platinum chloride, gold chloride, tannic acid, etc. On precipitating a solution of the bitter principle with phosphomolybdic acid and treating the precipitate according to Scheibler's process, namely, by treating the precipitate with barium hydrate, drying it upon the water-bath, and then extracting it with chloroform or alcohol, I recovered the same bitter principle unchanged. On vaporating the supernatant liquid, first neutralizing the solution by ammonium hydrate and then by sodium bicarbonate, drying the residue, and extracting it by means of chloroform, I recovered another quite large portion of the same bitter principle. From this experiment it would seem that phosphomolybdic acid unites with the bitter principle, forming a compound which is sparingly soluble. On heating the bitter principle with water acidulated with hydrochloric acid for some time, it gives at the end of a few hours a decided reaction with Fehling's solution, but I do not state this as a conclusive evidence of its being a glucoside. On passing ammonia gas into a chloroformic solution of the bitter principle it had the effect, after the gas had passed through a few minutes, of separating a dark-colored fluid, which floated on top of the chloroform. This dissolved very easily in water, giving a very beautiful rose-red solution with a slight fluorescence. The water solution gave a slight turbidity on treatment with HCl , and this is soluble in alcohol. Before treatment with NH_3 , the bitter principle is very soluble in chloroform and not very soluble in water; after treatment, the solubility is reversed. As to the other constituents of taraxacum, there have been separated two distinct resins, one soluble in chloroform and insoluble in alcohol; another soluble in 80 per cent. alcohol. The latter resin, when slowly evaporated from alcoholic solution, separates from it in white, cauliflower-like forms. These two resins are now under examination, and it is to be hoped that by the time the proceedings of this association are published more definite statements concerning their ultimate composition, as well as the composition of taraxacin, will be made.

For next year's work I propose to go

over the ground, and am negotiating for the preparation of a chloroformic extract of 100 lbs. of drug, as a starting point for further investigation. I should state, before closing, that the resins above mentioned, when purified and boiled with nitric acid, do not yield even a trace of crystals on evaporation. The resins are oxidized to yellow substances, which are only slightly soluble in water; soluble in alcohol. The aqueous alcoholic solutions are colored intensely red by ammonia. These are nitro-compounds, undoubtedly; the amido-compounds, by reduction with alcoholic ammonium sulphide, are being investigated.

For aid in this work, I wish to express my indebtedness especially to Mr. H. P. Cady, Lawrence, Kansas, assistant in chemistry. Also to Prof. A. B. Prescott, for his valuable assistance in collecting the bibliography of the subject, which is tabulated below.

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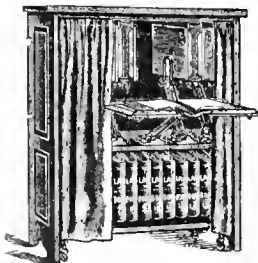
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Prof. Diehl's introduction to the report on the Progress of Pharmacy was of a most exhaustive nature, and showed that the report itself would be of a most comprehensive character.

The report on membership showed that during the year 243 new applications had been made for membership; of these, 141 had completed their application for membership, and there were 209 in arrears. It was considered that the depression in trade had caused a falling off in the number of applicants for membership and had increased the number in arrears. There were now 1,435 members in good standing, to which had to be added 141 new members; one new life member, ninety-five life members, and fifteen honorary members. There had been twenty-three deaths.

Dr. Stewart, of Detroit, delivered an able address on "National Legislation," in the course of which he drew attention to the close relationship existing between medicine and pharmacy. Pharmacy was really a branch of medicine, and as medicine was one of the so-called liberal professions; therefore pharmacy must also be considered as such. Pharmacists should be ready to make public their discoveries, just as it was expected that medical men would publish discoveries made by them, which were for the good of humanity. The constant conflict between trade and science was shown in the fact that the United States patent laws endeavored to protect science, on the one hand, and trade on the other. The pharmaceutical profession should be protected, and pharmacy should not be allowed to degenerate into a trade. Various plans of relief from unfair methods of trade, competition with proprietary medicine houses, department stores, etc., had been proposed. The Committee on Legislation, which Dr. Stewart represented, believed that the only method of relief consisted in the recognition of pharmacy as a liberal profession, its practice in a professional manner, and its protection as a special class of the community, such protection being for the true interests of the public at large. After referring to the question of trade marks and quoting a number of articles from trade papers on decisions of law courts on this question, Dr. Stewart concluded by saying: "The importance of the subject of patents and trade marks in relation to medicine demand more consideration than the limits of this report will allow. Your committee would refer these interested to such standard authorities as 'Browne on Trade Marks,' 'Simond's Manual of the Patent Law,' the article on 'Copyright' in the Encyclopedia Britannica, and the address of the

chairman before the section of the Committee of Materia Medica, Pharmacy, and Therapeutics of the American Medical Association recently delivered at Atlanta, and entitled 'Practice of Pharmacy as a Liberal Profession.'"

The general session of the association was then adjourned until the following morning, and Mr. Geo. G. Seabury took the chair as president of the section on Commercial Interests. The chairman's address was, as might be expected, of a highly practical nature, and consisted, to a large extent, of a series of questions addressed to pharmacists, physicians, and non-secret manufacturers, the replies to these questions showing the different positions taken by the different interests. Mr. Seabury insisted upon the value of registration, and considered that if trade were in a lamentable state they had themselves to blame. Considerable discussion followed, and Prof. Holberg had something to say about "flimflams" not being confined to non-secret men only. He referred to the case of a manufacturing firm, not non-secret, which offered to supply to the druggist who should use his own name on the preparation an article at a dollar and a quarter, the ingredients of which could not cost less than three dollars. The inference was clear.

By resolution the following motion by Prof. Holberg was laid on the table: "That the American Pharmaceutical Association approves of an organization by pharmacists for the manufacture and sale of medicines for popular use, as being a logical plan by which the retail druggists can regain the trade lost through the encroachment of the cutting establishments and the indifference of the jobbers, and that it is believed to be the best means by which the pharmacists of the United States may obtain relief from the patent medicine monopoly."

No evening session was held, as it was thought desirable to let the members have an opportunity of attending the Fête de Nuit at Boucherville.

THIRD DAY.

After reading of minutes it was intimated that sixty-two new members had been elected. Professor Diehl reported from the committee on the president's address, the recommendations of which were endorsed by the committee. The work of the Scientific Section was then taken up, with Mr. S. P. Saddler, of Philadelphia, in the chair. In the course of his address he claimed that the pharmacist should be a scientific man, and that he should be up-to-date with every new improvement and requirement of his profession. He referred to the thoroughness of methods in Germany, and insisted that if to the thoroughness of Germany the pharmacists of America would add American energy they would be in a position to cope with all comers, and take a place second to none. Some improvement should be made in their methods of study.

Mr. Lyman F. Kebbler, of Philadel-

phia, then presented the report of the committee on indicators in the titration of alkaloids. Considerable discussion followed the reading of this very technical report.

Prof. Bartley then read the report of the Committee on the Revision of the American Pharmacopoeia, discussion on which was held over for the evening session. The afternoon was devoted to an electric car ride through the leading streets of the city.

The report of the Committee on the Revision of the Pharmacopoeia recommended the alteration of certain formulae, and the elimination from the Pharmacopoeia of certain preparations, especially wines and spirituous liquors. Those who favored the recommendation were of opinion that a slur had been cast upon pharmacists by their keeping these liquids, and thought that they were so seldom prescribed that they might be dispensed with in the Pharmacopoeia. The opponents maintained that while brandy, whisky, etc., might be rarely prescribed by the medical profession, they were largely used as vehicles for other drugs, and that when they were prescribed as beverages, as they were sometimes in the case of convalescents, it would be unfair to compel these patients to go to the saloon, where they would get adulterated liquor. A vote was taken, and the committee's recommendation was lost. The whole report, with the exception of such clauses as had been specially referred to other sections, was referred to the National Committee on the Revision of the Pharmacopoeia, and the clause on wines and spirits was referred to the section on Materia Medica, Pharmacy, and Therapeutics of the American Medical Association.

The Special Committee on Research and Scientific Papers was appointed as follows: Prof. Prescott Lloyd (elected for two years), Coblentz and Amos (elected for one year).

Papers on "The Caffein Compound in Kola," by Mr. P. T. Knox and Prof. Prescott, and "Taraxacin," by Mr. L. E. Dayre, were also read.

FOURTH DAY.

The sessions to-day were mainly taken up papers from the Scientific Section and the Educational and Legislative Section.

The question of the qualifications of pharmacists was pretty well threshed out, Prof. Holberg holding very strongly that many applicants were deficient in general knowledge and unfit for the profession of pharmacy. This, he thought, was largely owing to the employment of females as teachers. Then there was an immense difference in different schools. In Michigan they were excellent, in Kansas a disgrace.

Prof. Mason spoke on the State boards of pharmacy examinations and the qualifications of those who presented themselves for the examination, and was specially severe on the "quiz-compend."

During the discussion which followed a great deal was said on the subject of

pharmacy boards; there were boards of pharmacy on which there were no pharmacists. The matter of examination questions was taken up, and Dr. Whelpley's model examination paper came in for some pretty strong criticism by Dr. Reed, of Montreal. The difficulty of setting papers to cover all points was insisted on, and Mr. Holshauer, of New Jersey, showed the danger there was of having a lack of technicality on the one hand, or a lack of questions to show general knowledge on the other.

Mr. Chapman, Montreal, found great ignorance of arithmetic and their own language in candidates, and advocated both written and oral examinations, a point insisted upon by other speakers and de-

to Montreal, which was reached shortly after four o'clock. In the evening a very pleasant concert was given in the Windsor Hall.

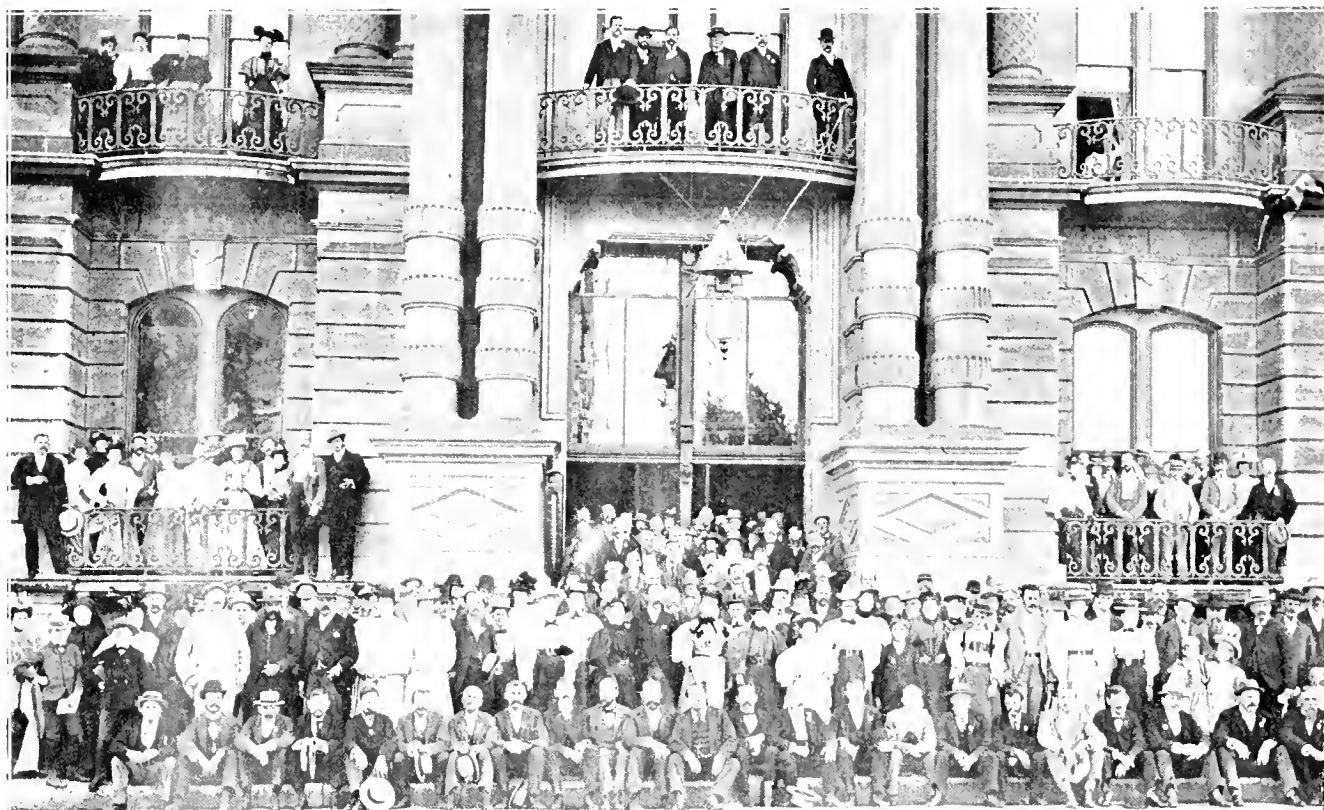
Mr. Good, the retiring president, occupied the chair on Tuesday morning, the last meeting of the general session. Prof. Payne, of Atlanta, Georgia, read extracts from the report of the committee on the status of pharmacists in the army and navy of the United States. The report drew attention to the generally wretched condition of these pharmacists, both as to standing and pay. They had to pass an examination before medical officers, and not before a board composed of members of their own profession, and this the report found fault with. Medical officers were

Prof. Ryan read the report of the Committee on Weights and Measures. The bill making the metric system general throughout the United States was expected to pass through Congress shortly.

It was resolved that the Committee on National Legislation should consist of five members, embracing one from Canada, so as to give it an international character.

It was also resolved that in the event of the passing of the bill making alcohol free to pharmacists, it should be recommended that it be confined to alcohol to be used for medicinal or industrial purposes only, the alcohol being so treated as to make it useless as a beverage.

It was resolved to cable the greetings



The American Pharmaceutical Association- photographed in front of Windsor Hotel.

plored the difficulty of getting practical men.

Mr. Williams, of Three Rivers, referred to the difficulty they had to contend with in requiring both French and English in the Province of Quebec.

CONCLUDING DAY.

Monday was an off day with the convention, the members of which, with their friends, to the number of three hundred, spent the day on board the steamer *Bohemian*. The day was ideal; a run was made through the Lachine canal to Lake St. Louis, and the rapids were then run, without accident, of course. Dinner was served on board, and when Verchères was reached the boat's head was again turned

no more pharmacists than were pharmacists medical officers. A certain measure of success had attended the efforts of the committee towards reform, and they were pleased to be able to state that the Marine Hospital stewards had now been placed on the civil service list. It was hoped that the committee would be able to report further success at next convention.

A suggestion that the status of pharmacists employed by the Canadian Government be enquired into was made, on the grounds that the association had members from Canada as well as the United States; but the suggestion was not adopted, it being thought unadvisable to interfere with matters referring only to the subjects of Her Majesty.

of this association to the convention meeting in Prague, Austria.

Omaha, New York, and Baltimore urged their claims to have the meeting of 1898, and the matter was referred.

A unanimous vote of thanks was then passed to the local committee, the druggists of Montreal and other cities of Canada, to the daily press of our city, and a special vote of thanks to Mr. Morrison, the local secretary, for their untiring efforts to secure the comfort of the members of the association.

Mr. Chapman, Montreal, replying, said that the indebtedness was entirely on the side of the visited, and their thanks were due to the visitors, from whom they had learned so much.

INSTALLATION OF OFFICERS.

The ceremony of installing the newly-appointed officers, whose names were given in last issue, was then proceeded with, the retiring president, Mr. Good, appointing Mr. Chapman, of Montreal, and Mr. F. S. Hereth, of Chicago, to introduce the new officers to him, he, in his turn, introducing them to the delegates, who received them standing.

Mr. Good paid a high tribute to the abilities of Mr. J. E. Morrison, their new president, expressing his opinion that the badge of office was safe in Mr. Morrison's hands. The installation was then completed by Mr. Good affixing the president's badge of office on Mr. Morrison's breast.

The new president, in replying, thanked the members of the association most heartily for the high office they had conferred upon him. He remembered thinking, when he entered on the study of pharmacy, that membership of the American Pharmaceutical Convention was an honor which he might one day obtain, but he never imagined that he should be called upon one day to fill the chair once filled by such men as Parish, Ebert, Patch, Remington, Good, and others. He felt that this was an honor conferred, not so much on him individually, as an honor conferred on the pharmacists of Canada, and he was sure that these felt flattered by the honor thus conferred. His elevation to this position, he felt, would have a beneficial effect on the profession in Canada, acting as a stimulus.

Mr. Sheppard, on being installed as treasurer, expressed his conviction that these meetings, bringing together, as they did, members from all over the country, were doing great good. He hoped that they would come back more frequently to Canada and become better acquainted with their Canadian brethren; they were really one, their interests were one, and he hoped that one day they would have but one pharmacopœia for the whole of North America.

Mr. Mayo, having moved that a committee be appointed to enquire as to the desirability of the convention of 1900 being held on board a steamer on its way to Europe, and a committee appointed, Dr. Ryan moved the adjournment until August 26th.

The following committees were declared appointed, and other committees are to be announced later:

Committee on National Legislation—Dr. F. E. Stewart, A. E. Ebert, W. S. Thomson, E. Muir, E. R. Squib.

Revision of the United States Pharmacopœia—Leo Eliel, South Bend, Ind.; E. H. Bartley, Brooklyn; A. B. Stevens, Ann Arbor, Mich.; W. M. Searby, San Francisco; A. R. L. Dolme, Baltimore.

Committee on Prizes—F. S. Hereth, Geo. F. Payne, W. H. Chapman.

Delegates to Materia Medica and Pharmacy of the American Medical Association—Dr. Stewart, C. L. Diehl, J. P. Remington, J. U. Lloyd, A. E. Ebert, L.

E. Sayre, H. M. Whelpley, S. T. Saddler, E. L. Patch, H. Trumble, A. R. L. Dolme, W. S. Thomson, W. M. Searby, M. L. Chalm, L. C. Hopp, J. N. Hurtz, J. C. R. Kellam, D. M. R. Culbert, T. D. Reed, Jos. Jacobs, A. B. Prescott, J. H. Beal, O. Oldberg, H. R. Slack, C. S. N. Halberg, R. W. Williams, E. Kremers, V. Coblenz, R. G. Eccles, Chas. Rice, Chas. Caspari, jr., and W. C. Alpers.

During the course of the meeting an excellent group photograph of the delegates and their lady friends was taken in front of the Windsor Hotel by Dennison, 2264 St. Catherine street, from whom copies can be had.

Alcohol as a Source of Error in the Titration of Alkaloids and Alkaloidal Residues.*

By CHAS. CASPARI, JR.

Methods for the volumetric determination of alkaloids in crude drugs and galenical preparations frequently include directions to dissolve the varnish-like residue (after the same has been washed with ether and dried to constant weight) in alcohol, with the aid of heat if necessary, and then to add water until a slight permanent turbidity results. A definite quantity of decinormal acid, sufficient to insure a slight excess, having been added to the mixture, the excess is titrated with centinormal alkali in the presence of a suitable indicator.

In the course of some recent analytical work, the writer observed that alcohol appeared to influence the color produced by acids and alkalies with different indicators in the titration of alkaloidal residues, and a series of experiments were therefore made to study more closely the nature of the changes observed, and also to determine, if possible, whether alcohol really was the disturbing factor.

Plain water, diluted alcohol (a mixture of equal volumes of alcohol and water), 94.5 per cent. alcohol (commercially known as cologne spirit) and absolute alcohol, were employed in connection with decinormal sulphuric acid and centinormal potassium hydroxide solution, as also the following well-known indicators: hæmatoxylin, cochineal, Brazil wood, methyl orange or tropæolin OO, lacmoid and litmus. Tap water was found unfit for colorimetric work, as it invariably caused an alkaline reaction with the indicators, even after having been well boiled, and pure distilled water was, therefore, employed instead. 10 c.c. of the respective liquids were put into a beaker, together with the indicator, and acid or alkali added until the desired change of color was produced.

The following results are very significant and well worthy of attention:

Hæmatoxylin solution, 1 gm. to 100 c.c. alcohol. 3 drops were used for each experiment.

10 c.c. distilled water; the addition of

1 drop $\frac{N}{100}$ KOH sol. caused a decided purple color.

10 c.c. diluted alcohol required 0.65 Cc. $\frac{N}{100}$ KOH sol. to produce the same purple color, which was again destroyed upon the addition of a few drops of alcohol.

10 c.c. alcohol required 1.25 c.c. $\frac{N}{100}$ KOH sol. to show a decided alkaline reaction.

10 c.c. absolute alcohol; a purple color was produced within one minute by the indicator alone without the addition of any alkali. The color, however, disappeared upon addition of a trace of decinormal acid.

Cochineal solution, 10 gm. to 100 c.c. 25 per cent. alcohol. 5 drops were used for each experiment.

10 c.c. distilled water required 5 drops (about 0.2 c.c.) $\frac{N}{100}$ KOH sol. for a decided alkaline reaction, indicated by a purplish red (onion-red) color.

10 c.c. diluted alcohol required 0.80 c.c. $\frac{N}{100}$ KOH sol. to produce the same color, which was again destroyed by a few drops of alcohol.

10 c.c. alcohol required 1.4 c.c. $\frac{N}{100}$ KOH sol. to produce the same color.

10 c.c. absolute alcohol required 0.1 c.c. $\frac{N}{100}$ KOH sol. to show the alkaline reaction.

Brazil-wood solution (U.S.P. test-solution), 10 gm. to 20 c.c. water with subsequent addition of 2 c.c. alcohol. 10 drops were used for each experiment.

10 c.c. distilled water required 5 drops $\frac{N}{100}$ KOH sol. to produce the pink color indicating alkalinity.

10 c.c. diluted alcohol required 1.0 c.c. $\frac{N}{100}$ KOH sol. to produce the same color, which was again destroyed by a few drops of alcohol.

10 c.c. alcohol required 1.6 c.c. $\frac{N}{100}$ KOH sol. to show the alkaline reaction.

10 c.c. absolute alcohol required 0.25 c.c. $\frac{N}{100}$ KOH sol. to produce the desired pink color.

Lacmoid solution, 1 gm. to 500 c.c. 50 per cent. alcohol. 10 drops were used for each experiment.

10 c.c. distilled water required 2 drops $\frac{N}{100}$ KOH sol. to produce a decided purplish blue color.

10 c.c. diluted alcohol required 0.45 c.c. $\frac{N}{100}$ KOH sol. to produce the same color, which was again destroyed by a few drops of alcohol.

10 c.c. alcohol required 0.7 c.c. $\frac{N}{100}$ KOH sol. In this case the purplish blue color produced was discharged by a large excess of alkali.

10 c.c. absolute alcohol. A decided blue color was produced by the indicator alone, which was not changed by addition of an excess of alkali.

Litmus solution (aqueous solution). 4 drops were used for each experiment.

a. 10 c.c. distilled water; a purplish red color was produced by the indicator alone.

b. 10 c.c. distilled water required 2 drops $\frac{N}{100}$ KOH sol. to produce a decided purplish blue color.

*Read at the meeting of the A. Ph. A. at Montreal.

10 c.c. diluted alcohol required 0.2 c.c. $\frac{N}{100}$ KOH sol. to produce the same color as in *a*.

10 c.c. diluted alcohol required 0.65 c.c. $\frac{N}{100}$ KOH sol. to produce the same color as in *b*. This color was again destroyed by addition of a few drops of alcohol.

10 c.c. alcohol required 1.10 c.c. $\frac{N}{100}$ KOH sol. to produce the same color as in *b*.

10 c.c. absolute alcohol produced the same color as obtained in *b* with the indicator alone.

Tropæolin OO or Methyl orange solution, 1 g.m. to 500 c.c. 50 per cent. alcohol. Two drops were used for each experiment.

a. 10 c.c. distilled water upon addition of 1 drop $\frac{N}{100}$ H_2SO_4 gave the characteristic pink color, showing an acid reaction.

b. 10 c.c. distilled water with 0.1 c.c. $\frac{N}{100}$ H_2SO_4 gave a decided crimson color showing a strong acid reaction.

c. 10 c.c. diluted alcohol required 1.10 c.c. $\frac{N}{100}$ H_2SO_4 to produce the same color as in *b*.

10 c.c. alcohol with 3.5 c.c. $\frac{N}{100}$ H_2SO_4 failed to produce the same color as in *b*: a deep orange red color was produced which gradually on further addition of 1.25 c.c. $\frac{N}{100}$ H_2SO_4 changed to crimson.

10 c.c. absolute alcohol failed to produce a crimson color with 4.75 c.c. $\frac{N}{100}$ H_2SO_4 .

d. 10 c.c. distilled water, treated as under *b*, required 0.97 c.c. $\frac{N}{100}$ KOH sol. to produce a strong yellow color indicating alkalinity.

10 c.c. diluted alcohol, treated as under *c*, required only 10.20 c.c. $\frac{N}{100}$ KOH sol. to produce the same color as in *d*.

From the foregoing reactions it is very evident that alcohol and absolute alcohol, as available in the market, exercise a decided influence on color indicators and may be the fruitful source of error in volumetric work. Strange to say, while alcohol appears to play the part of an acid toward hæmatoxylin, cochineal, Brazil wood, lacmoid, and litmus, by requiring an increased quantity of alkali to produce the characteristic alkaline color reaction, it behaves quite differently towards methyl orange or tropæolin OO. In the latter case alcohol seems to lend to the indicator a strong alkaline reaction, requiring a phenomenal amount of decinormal acid to produce the characteristic acid color. The fact that absolute alcohol appears alkaline towards all of the above indicators is remarkable, and, while no further examination of the article was undertaken, it is but fair to say that it was the product of a well-known reliable American manufacturer. The alcohol used was such as is usually sold to pharmacists by the jobber as prime cologne spirit.

If, then, alcohol plays so important a part in color reactions, it is more than likely that its presence will influence more or less the results obtained in the titration of alkaloidal residues, and hence it should be rigidly excluded in all such work if

accuracy is desired. It may be employed to bring the impure (often resinous) residue into solution, so that the decinormal acid can dissolve the alkaloid more readily, but should invariably be dissipated by the application of heat before titration of the acid solution is undertaken.

To show the effect of alcohol on the valuation of alkaloids, and to point out more forcibly the necessity for the absence of this solvent in such operations, four alkaloids, morphine, cocaine, atropine, and strychnine, all of American manufacture, were assayed volumetrically both in aqueous and dilute alcohol solution. Quinine and cinchonine cannot be determined volumetrically like the other alkaloids above mentioned, because when in acid solution, prepared exactly like the others, both gave an alkaline color indication with cochineal and tropæolin; with hæmatoxylin and Brazil wood, although the reaction at first is acid, an alkaline reaction occurs before the excess of acid is neutralized, and hence results entirely too high are obtained.

The solutions used in making the following determinations were so prepared that 100 c.c. of finished product contained 0.500 g.m. of alkaloid and 20 c.c. of decinormal acid. Ten c.c. of this solution were used for each titration, centinormal alkali solution being used to determine the excess of acid. The equivalent of 1 c.c. $\frac{N}{100}$ KOH sol. in $\frac{N}{100}$ H_2SO_4 was determined for each indicator so that accurate calculation as to percentage could be made. The proportion of pure alkaloid determined in both the water and the dilute alcohol solutions is given opposite each indicator for the sake of ready comparison, the quantity of indicator used having been the same as stated in the experiments with plain solvents, mentioned above. Two extra determinations we made in the case of each alkaloid, with hæmatoxylin and tropæolin OO, after addition of 5 c.c. alcohol to the dilute alcohol solution; this was done for the purpose of showing the effect of a larger proportion of alcohol, whereby the detrimental influence of the latter liquid is emphasized.

MORPHINE.

Indicator.	Water Solution.	Diluted Alcohol Solution.
Hæmatoxylin.	98.58 per cent.	96.05 per cent.
Cochineal	98.48 "	95.20 "
Brazil wood	98.32 "	80.68 "
Tropæolin OO	98.55 "	105.44 "
Lacmoid	98.91 "	97.50 "
Litmus	98.41 "	94.05 "

In the case of tropæolin the diluted alcohol solution required the addition of 1.53 c.c. $\frac{N}{100}$ H_2SO_4 before a decidedly acid color was obtained and satisfactory titration made impossible.

After addition of 5 c.c. of alcohol to 10 c.c. of the diluted alcohol solution the following results were obtained:

With hæmatoxylin 89.00 per cent.
With tropæolin OO, requiring the addition of 3.4 c.c. $\frac{N}{100}$ H_2SO_4 107.68 "

COCAINE.

Indicator	Water Solution.	Diluted Alcohol Solution.
Hæmatoxylin.	97.26 per cent.	94.65 per cent.
Cochineal	96.35 "	95.02 "
Brazil wood	95.95 "	90.71 "
Tropæolin OO	97.26 "	104.23 "
Lacmoid	97.44 "	96.53 "
Litmus	96.35 "	92.81 "

In the case of tropæolin the diluted alcohol solution required the addition of 1.56 c.c. $\frac{N}{100}$ H_2SO_4 before a decidedly acid color was obtained and satisfactory titration made possible.

After addition of 5 c.c. of alcohol to 10 c.c. of the diluted alcohol solution, the following results were obtained:

With hæmatoxylin 92.84 per cent.
With tropæolin OO, requiring the addition of 3.2 c.c. $\frac{N}{100}$ H_2SO_4 106.65 "

ATROPINE.

Indicator	Water Solution.	Diluted Alcohol Solution.
Hæmatoxylin	99.89 per cent.	96.82 per cent.
Cochineal	100.68 "	97.33 "
Brazil wood	99.75 "	94.62 "
Tropæolin OO	100.02 "	106.58 "
Lacmoid	100.38 "	97.95 "
Litmus	98.20 "	91.49 "

In the case of tropæolin the diluted alcohol solution required the addition of 1.52 c.c. $\frac{N}{100}$ H_2SO_4 before a decidedly acid color was obtained and satisfactory titration made possible.

After addition of 5 c.c. of alcohol to 10 c.c. of the diluted alcohol solution, the following results were obtained:

With hæmatoxylin 92.95 per cent.
With tropæolin OO, requiring the addition of 3.2 c.c. $\frac{N}{100}$ H_2SO_4 108.09 "

STRYCHNINE.

Indicator.	Water Solution	Diluted Alcohol Solution
Hæmatoxylin	97.03 per cent.	94.59 per cent.
Cochineal	97.43 "	94.25 "
Brazil wood	96.53 "	80.11 "
Tropæolin OO	97.10 "	103.54 "
Lacmoid	98.03 "	97.19 "
Litmus	92.11 "	84.02 "

In the case of tropæolin the diluted alcohol solution required the addition of 1.5 c.c. $\frac{N}{100}$ H_2SO_4 before a decidedly acid color was obtained and satisfactory titration made possible.

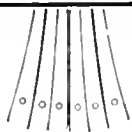
After addition of 5 c.c. of alcohol to 10 c.c. of the diluted alcohol solution the following results were obtained:

With hæmatoxylin 87.64 per cent.
With tropæolin OO, requiring the addition of 3.3 c.c. $\frac{N}{100}$ H_2SO_4 110.22 "

QUININE.

Although quinine, for reasons already stated above, cannot be titrated in the same manner as the other alkaloids mentioned, the effect of alcohol can nevertheless be observed. Decinormal hydrochloric acid was used in place of sulphuric acid to avoid fluorescence, and hæmatoxylin was employed as the indicator.

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When titrated in water the result showed 117.18 per cent; when titrated in a mixture of alcohol and water (equal volumes) the result showed 112.79 per cent.

It is possible that alkaloids and alkaloidal residues may be titrated with a fair degree of accuracy in alcoholic or hydro-alcoholic solution, provided the relation of the centinormal alkali to the decinormal acid has been previously determined for the particular indicator to be employed, in the presence of the alcohol or the mixture of alcohol and water; but this necessitates extra labor as well as a knowledge of the proportion of alcohol present, since an increase or decrease of the latter materially affects the equivalent.

The following tables show at a glance the variation in the relation of alkali to acid, as indicated by color reactions, in the presence of different mixtures of alcohol and water. The presence of alcohol, moreover, seems to have a direct influence on the color produced by the indicator, and the changes are by no means as sharp as in water alone, and in some cases are even observed with difficulty, thus rendering the titration results less reliable. The decinormal sulphuric acid used was standardized by precipitation as barium sulphate and found to contain 0.004889 gm. H_2SO_4 in 1 c.c. With this acid the centinormal alkali solution was standardized, phenolphthalein being used as an indicator.

A. Table showing the number of c.c. $\frac{N}{100}$ KOH Solution Necessary to produce a Neutral or Faintly Alkaline Reaction with Different Indicators when 10 c.c. $\frac{N}{10}$ H_2SO_4 are Titrated in the Presence of 60 c.c. of Distilled Water, Alcohol, and Mixtures of Alcohol and Water.

Indicator.	Distilled Water	Alcohol 1 vol. Distilled Water 2 vols.	Alcohol 1 vol. Distilled Water 1 vol.	Alcohol 2 vols. Distilled Water 1 vol.	Alcohol 94.5 per cent.
Phenolphthalein	106.16	104.39	106.72	109.79	109.24
Hæmatoxylin	95.17	100.54	100.53	101.53	103.15
Tropæolin OO	98.42	96.95	96.11	94.79	74.05
Cochineal	93.52	101.20	101.73	102.06	104.07
Brazil wood	98.57	102.09	103.10	104.28	106.26
Lucmoid	99.06	100.44	101.13	101.50	102.71
Litmus	98.66	102.69	103.40	104.25	106.32

*Color very difficult to distinguish.

B. Table Showing the Equivalent of 1 c.c. $\frac{N}{100}$ KOH in Decinormal Sulphuric Acid when Titrated with Different Indicators in the presence of Distilled Water, Alcohol, and Mixtures of Alcohol and Water.

Indicator.	Distilled Water	Alcohol 1 vol. Distilled Water 2 vols.	Alcohol 1 vol. Distilled Water 1 vol.	Alcohol 2 vols. Distilled Water 1 vol.	Alcohol 94.5 per cent.
Phenolphthalein	0.00924	0.00929	0.00944	0.00977	0.00914
Hæmatoxylin	0.01086	0.00947	0.00917	0.00849	0.00904
Tropæolin OO	0.01019	0.01016	0.00935	0.00850	0.00807
Cochineal	0.01015	0.00821	0.00824	0.00712	0.00608
Brazil wood	0.01144	0.00975	0.00971	0.00951	0.00948
Lucmoid	0.01004	0.00956	0.00927	0.00940	0.00975
Litmus	0.01035	0.00932	0.00951	0.00936	0.00945

The only explanation that can be offered for this peculiar behavior of alcohol is on the basis of Arrhenius' theory of electrolytic dissociation, as detailed in the writings of Prof. Ostwald. According to the latter authority, indicators also depend for their value entirely upon dissociation, and, although the various alcohols have a dissociating effect upon salts held in solution by them, it is less marked than in the case of water, and decreases with the increasing molecular weight of the alcohol.

The conclusions forced upon us as a result of the observations above enumerated are, that far more accurate volumetric determinations of alkaloids and alkaloidal residues can be made in water alone than in mixtures of the same with alcohol, and that the error was caused by the latter is augmented as the proportion of alcohol is increased.

Baltimore, Md., July, 1896.

Ointment Bases.

THEIR MISCIBILITY WITH WATER, ALCOHOL, AND GLYCERIN.

By ARTHUR ST. ONGE, Ph.D.

Fats are not soluble in water or glycerin, and are practically insoluble in alcohol; they will hold mechanically, however, various quantities of those liquids, this power of mechanical suspension being increased by the presence of alkalies or gummy substances.

The amount of liquids absorbed by fatty bodies, or mixtures of fats used as ointment bases, varies greatly, the percentage of water taken by the different bases varying from 2 per cent. to 400 per cent., for glycerin varying from 25 per cent. to 600 per cent., and for alcohol 2.82 per cent. to 200 per cent.

The figures given are not absolute, but are useful for the prescription counter, where the question of how much liquid a certain base will absorb often presents itself.

The method used to incorporate the different fluids into the various bases was simply that which a pharmacist would use, if he had an ointment to make containing a liquid: that of rubbing the fat with the liquid. I found it to be the most practical of the different processes suggested.

To find the amount of water taken by a base, I weighed 10 grammes of the substance, placed it in a mortar, and the aqueous fluid was gradually added from a burette, triturating often each addition, until the base was saturated. When saturated, the reading of the burette indicated the percentage of fluid taken: the quantity of the base used was such that each 1-10 of 1 c.c. of the liquid used equalled 1 per cent.

For glycerin the same process was followed, only corrections had to be made, due to the difference in the density of the liquids. The specific gravity of glycerin used had to be multiplied by 1.25 to find the number of parts by weight.

For alcohol, the method of procedure had to be modified, on account of the volatility of the liquid. It consisted, as before, of saturating the base with the liquid, but instead of reading the burette, as in the preceding, the saturated base was weighed, and from the increased weight the percentage was calculated.

Water, when mixed with a base, gives it a white and creamy appearance; alcohol does not whiten the base nor change the color, and glycerin makes a mass more or less translucent.

The length of time taken to incorporate the base with the liquid must necessarily vary. When the proportion of liquid is comparatively small compared with the base, as in the case of lard and petroleum jellies, a minute or two is sufficient for complete saturation; bases that absorb from 35 to 65 parts of liquids can be saturated within fifteen or twenty minutes, whilst lanoline and other wool fats cannot be saturated within a reasonable time; it is not due so much to excessive amount of certain liquids that they will take as to their ropiness and stickiness, and their large increase in bulk when being saturated. From 5 to 10 grammes is about the right quantity to use of the various bases to work with. But 5 grammes of lanoline, on being saturated with water, increase so much in volume as to make an inconveniently large mass to manipulate when nearing the point of saturation, and its stickiness is so great that one cannot continuously triturate.

Adipatum, an ointment base used as a substitute for lard, and consisting of wool fat, vaseline, and cerasin, can be saturated with water in less time and with much more ease than lanoline can, although the amount of water taken by the former is larger than by the latter. Fats diminish the stickiness of wool fat, and also its tendency to enormously increase in volume when incorporated with water.

When large quantities of liquids are to be added to bases, they should be added gradually and caused to disappear before another portion is added.

Bases saturated with water will not take glycerin and *vice versa*; water and glycerin can be used, however, in the same base. A base saturated with alcohol will take up water without the breaking of the mixture.

When two or more liquids are to be incorporated into a base, their previous admixture seems to work better than the separate incorporation. Saturated bases with liquids are not permanent mixtures, the water and alcohol evaporating upon exposure, whilst glycerin has a tendency to separate upon standing; the glycerin appearing as fine globules all through the mass, and the mass becoming readily homogeneous upon stirring. Fats mixed with liquids within two-thirds of the saturating point are comparatively stable.

Ointment bases containing white or yellow wax and the white paraffin jellies, when saturated with water, will grow darker upon standing.

Cerate, spermaceti cerate, ointment, cold cream, goose oil and yellow wax, alboline and white vaseline are the bases referred to above. The other bases did not change in color.

The various bases, after being saturated with water, were kept in a dark place for two months, the average temperature being 20° C. (68° F.). At the end of that time, on being opened, the change in color was noticed in some of them, but none had grown rancid during that period.

It is a generally conceded fact that the various petroleum jellies will absorb only small quantities of liquids. Castor oil has been said to remedy this effect, at least as far as water was concerned, claiming that it would make them miscible with water in all proportions, the quantity stated being two drops of oil for each gramme of liquid.

Mixtures of vaseline, cosmoline, and lucilline, each were made with castor oil by both fusion and incorporation, and in each instance failed to have them take up any more water than without the agency of the oil.

I have found, however, that 5 per cent. of wax added to the petroleum will cause them to absorb a large quantity of water. By this agency from 35 to 65 parts of water was absorbed by some of the commercial products. These substances being mixtures of hydrocarbons, and not definite compounds, may somewhat account for this difference in the amount of water taken. Even samples of the same brand will vary somewhat in their absorptive power.

Wool fat is remarkable for the large amount of water and glycerin it will hold. Lanoline and "N.W.K." hydrous wool fat, although containing 30 per cent. of water, are still miscible with twice their own weight of it. These substances when saturated contain water in the amount of 328 per cent. of their original weight. The stickiness of these fats is overcome by the use of vaseline and glycerin.

Following is a list of the bases examined, with their formulae and process of manufacture, or the names of the firms producing them, all parts given being parts by weight:

LARD.

Will take 15 parts of water, 9.05 parts of alcohol, and 100 parts of glycerin. Lard stated to take 15 parts of water.

BENZOINATED LARD, U.S.P.

Will take 17 parts of water, 8.36 parts of alcohol, and 100 parts of glycerin. Benzoinated lard stated to take 17 parts of water.

BENZOINATED LARD WITH TINCTURE BENZOIN.

Lard.....1 pound.
Tt Benzoin1 ounce.

Mix and heat on a water-bath, until alcohol is evaporated, and strain.

This is very similar to the preceding.

LARD WITH TOLU.

Prepared in a similar manner to the official benzoinated lard U.S.P

LARD WITH BALM GILEAD.

Lard digested with 5 per cent. of Balm Gilead on a water bath, until water is evaporated, and strained. It has a pale yellow color and the balsamic odor of Gilead. Same as benzoinated lard U.S.P.

LARD WITH BENZOIC ACID.

Lard melted and 1 per cent. true benzoic acid dissolved in it. Will take 12 parts of water, 6.22 parts of alcohol, and 80 parts of glycerin.

LARD WITH GLYCERIN.

Lard with 5 per cent. glycerin added. Will take 10 parts of water, 9.85 parts of alcohol, and 95 parts of glycerin.

LARD AND RESIN.

Lard containing 2 per cent. of resin. Will take 22 parts of water, 1,080 parts of alcohol, and 75 parts of glycerin.

LARD WITH VASELINE.

Lard.....9 parts.
Vaseline.....1 part.

Mix them.

Will take 4 parts of water, 4 parts of alcohol, and 50 parts of glycerin.

OINTMENT.

Will take 40 parts of water, 11.49 parts of alcohol, and 200 parts of glycerin.

CERATE.

Will take 40 parts of water, 13.25 parts of alcohol, and 100 parts of glycerin.

SPERMACETI CERATE.

Will take 30 parts of water, 9.69 parts of alcohol, and 80 parts of glycerin.

COLD CREAM.

Will take 50 parts of water, 5.68 parts of alcohol, and 300 parts of glycerin.

COCOANUT OIL.

Will take 100 parts of water, 54.8 parts of alcohol, and 50 parts of glycerin.

GOOSE OIL AND CACAO BUTTER.

Goose Oil.....6 parts.
Cacao Butter.....1 part.

Melt the cacao butter, add the goose oil, and stir until cold.

This will take 30 parts of water, 47.94 parts of alcohol, and 200 parts of glycerin. Does not hold the glycerin well.

GOOSE OIL AND YELLOW WAX.

Goose Oil.....6 parts.
Yellow Wax.....1 part.

Melt the wax, add the goose oil, and stir until cold.

This will take 100 parts of water, 37.67 parts of alcohol, and 600 parts of glycerin. The glycerin separates badly.

PETROLATUM.

Will take 10 parts of water, 5.72 parts of alcohol, and 100 parts of glycerin.

With 5 per cent. yellow wax it will take 55 parts of water. Amount of water stated at 4 parts.

COSMOLINE.

Will take 15 parts of water, 8.54 parts of alcohol, and 100 parts of glycerin. With 5 per cent. yellow wax it will take 55 parts of water. Amount of water stated at 4 parts.

LUCILLINE.

Will take 12 parts of water, 6.09 parts of alcohol, and 100 parts of glycerin. With 5 per cent. yellow wax it will take 35 parts of water.

VASELINE.

Will take 12 parts of water, 11.14 parts of alcohol, and 100 parts of glycerin. With 5 per cent. of yellow wax, it will take 65 parts of water. Amount of water stated as 4 parts.

WHITE VASELINE.

Will take 10 parts of water, 9.44 of alcohol, and 150 parts of glycerin. With 5 per cent. of white wax, it will take 60 parts of water.

ALBOLINE.

Will take 2 parts of water, 2.82 parts of alcohol, and 25 parts of glycerin. With 5 per cent. of white wax, it will take 15 parts of water. This the least absorptive of the various bases examined.

MOLLOSIN.

Paraffin Oil.....4 parts.
Yellow Wax.....1 part.

Melt the wax, add the paraffin oil, and stir until cold.

This will absorb 112 parts of water, 14.5 parts of alcohol, and 100 parts of glycerin.

LANOLINE.

Will take 200 parts of water, 8.14 parts of alcohol, and 200 parts of glycerin.

ANHYDROUS WOOL FAT.

Will take 200 parts of water, 5.34 parts of alcohol, and 200 parts of glycerin.

AGNINE.

Will take twice its weight in water, and 100 parts of glycerin. With 200 parts of alcohol is a yellow liquid. Agnine with 30 parts of water has not the ointment-like appearance of lanoline. It is darker and not ropy, but is short and mealy.

LANOLINE OINTMENT.

Lanoline.....3 parts.
Vaseline.....1 part.
Mix.

This will take 150 parts of water, 8.86 parts of alcohol, and 200 parts of glycerin.

UNGUENTUM LANOLINE.

Anhydrous Lanoline.....65 parts.
Liquid Paraffin.....30 parts.
White Cerasin.....5 parts.
Water.....30 parts.

Melt lanoline and cerasin together, then add the paraffin oil and water, and stir constantly until cold.

This will take 30 parts of water, 9.40 parts of alcohol, and 300 parts of glycerin.

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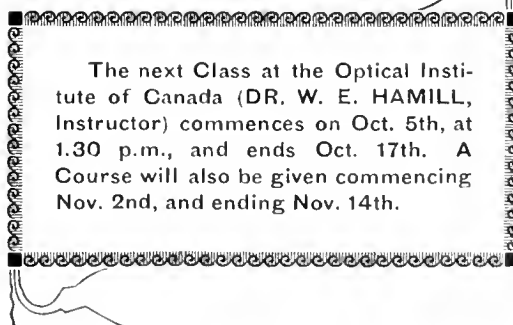
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For further information address the Principal—

J. S. LEO,

Optical Institute of Canada.

60 Yonge St. Toronto.

When saturated with glycerin it is completely free from the stickiness of lanoline.

ADIPATUM.

Anhydrous Lanoline.....35 parts.
Vaseline.....93 parts.
White Cerasin.....7 parts.
Water.....5 parts.

Melt the lanoline and cerasin, then add the vaseline, then the water, and stir until cold.

This will take 400 parts of water, 11.88 parts of alcohol, and 400 parts of glycerin. When saturated with glycerin it is entirely free from the stickiness of lanoline.

EPIDERMINE.

Equal parts of white wax, glycerin, acacia, and water. Rub acacia with glycerin and water. The wax is melted and added to the mucilage previously warmed to about 65° F., so as not to chill the wax, and stir until cold. Behaves with water like an emulsion. A thick, white, syrupy substance with 200 parts glycerin; with 50 parts of alcohol a white, sticky, ointment mass. This mass treated with 50 per cent. water gives a white emulsion.

MOLLIN.

A superfatted soap and glycerin, 100 parts of cocoanut oil or fresh fat, 40 parts of a 15 per cent. solution of potash; saponify without heat, then add 30 parts of glycerin, mix intimately and heat carefully. Ten per cent. of water softens the base; with its own weight of water it is a milk-white emulsion, which separates on standing. Mixes with glycerin, softened or liquefied by it according to quantity. Will take 5.36 parts of alcohol.

CASEIN OINTMENT.

Dissolve 34.5 parts of caustic potash and 8.5 parts of caustic soda in 5,000 parts of water, and dissolve 1,400 parts of casein in this solution. Now add 700 parts of glycerin and 50 parts of carbolic acid, and when they are dissolved incorporate 2,000 parts of vaseline and 50 parts of zinc oxide; finally add water enough to make 10,000 parts. May be diluted almost indefinitely with water or glycerin. Alcohol liquefies it; with 10 per cent. almost a fluid, 25 per cent. of it breaks the emulsion. It is thickened by alkalies and broken up by acids.—*New England Druggist*.

Tablet Making at the Dispensing Counter.

By S. HARDWICK.

I have brought forward this note to show what can be done towards meeting the demand for medicines in the tablet form with a small and inexpensive apparatus sold by Messrs. Maw, Son & Thompson, which is doubtless generally well known.

First, as regards drugs given in small doses as to bulk, as the alkaloids, arsenious acid, calomel, gray powder, podophyllin, aloin, sulphide of calcium, etc., these

generally only require to be triturated with a convenient quantity of sugar of milk, and may be compressed easily. This class of tablets should be made to weigh 2 grains each, that being a suitable quantity to work in the machine. The sugar of milk used should be in crystals, and the trituration of the drug carried out without great pressure, as a very fine powder does not compress well. Should there be a tendency for the tablet to stick in the die or split, the addition of a trace of heavy paraffin oil sprayed over the powder will generally overcome the difficulty.

Another method is the addition of half a grain of cocoa powder (from which the oil has been expressed) in place of an equal quantity of sugar of milk. This greatly facilitates compression, the trace of oil preventing the tablet sticking in the mould. The formula stands—

Cocoa Powder.....½ grain.
Sugar of Milk to.....2 grains.
Medicament as ordered.

No difficulty is experienced in making such a powder into tablets with a blow of the hammer, the dispenser being able to turn them out with ease and certainty in not more time than would be required to make the same quantity into pills, or put it up in cachets. I have not met with any objection to the color of the resulting tablet, while the facility of manipulation gained by the use of cocoa is a great advantage, as is also the convenience of having a general excipient applicable to a large class of tablets.

Tinctures of aconite, belladonna, digitalis, strophanthus, nux vomica, etc., may be evaporated on the sugar of milk over a water-bath, cocoa powder added, and the resulting powder easily compressed in the usual way.

Tablets of extract of cascara and combinations of cascara and podophyllin are easily made, the dried and powdered extract should be used, half its weight of liquorice powder added, and a trace of heavy paraffin oil sprayed over the powder.

Other tablets requiring special notice are caffeine citrate, and may be compressed without the use of any excipient.

Gray powder, 1 grain, requires 2 grains of sugar of milk, and the addition of a trace of paraffin oil. Quinine, 1 grain, works well with the addition of 1 grain of starch, and a trace of paraffin oil.

Other tablets of this class may generally be made on these lines without difficulty, the great point being to keep the machine perfectly clean, and dust it occasionally with French chalk.

I have had made for me a similar machine of larger diameter, which is useful for making five or ten grain tablets. In it such salts as the bromides of potash, soda, and ammonia are easily compressed without the addition of any excipient. Salol, phenacetin, and sulphonal are also easily made into tablets, but require the addition of one grain of starch to each five grains, when the resulting tablet dis-

integrates beautifully on the addition of water. An effervescent powder, as a mixture of citric acid and bicarbonate of soda, is useless as an addition for producing a disintegrating tablet; at any rate in moderate quantity.

Bismuth carbonate is perhaps the most difficult to compress, but the free addition of starch and the use of paraffin oil will somewhat meet the difficulty. Bismuth carbonate and bicarbonate of soda compress well if the mixed powder are sprayed over with paraffin.—*From a paper read at the British Pharmaceutical Conference.*

Iodates in Medicine.

(1) Silver iodate is used internally in doses of 0.005—0.01 gm. as an intestinal astringent, and is prescribed for acute diarrhoea and chronic catarrh of intestines. It does not interfere with the functions of the stomach. Administered in pills the same as the iodates of mercury, zinc and strontium.

(2) Lithium iodate is administered subcutaneously (0.1 per cent.) in kidney colic; in cases of chronic gout 0.15—0.2 gm. internally.

(3) Mercuric iodate is easily soluble in solutions of potassium iodide, the solution being clear and quite stable. (Dist. water 10.0 gms., mercuric iodate 0.115 gm., and potassium iodide 0.08 gm.; to be used subcutaneously.)

(4) Quinine iodate is used in doses of 0.05—0.10 gm. as a nerve tonic and antineuralgic; it is soluble in water.

(5) Strychnine iodate. Doses of 0.006 gm. should not be exceeded.

(6) Codeine iodate is more active than any other salt of this alkaloid, and can be used as a substitute for morphine without producing constipation. Dose, 0.03—0.05 gm.

(7) Hyoscyne iodate is twice or three times as active as any other hyoscyne salts. Prescribed in iritis and keratitis as a mydriatic. Maximum dose, 0.5 mgm; subcutaneously 0.1—0.15 mgm. Action is prompt in 0.05—0.07 per cent. solutions.

(8) Atropine iodate. Its solution remains germ-free for a long time, and does not require sterilization nor the addition of antiseptics. These latter two remedies act more rapidly than any other mydriatics, but their effects are less lasting.—*Therap. C. Bl.; Ph. Post.*

Phosphated Oil in Dentistry.

Phosphated oil is a sovereign remedy for removing violent pain in periostitis resulting from a carious tooth. The cavity should be cleaned, dried, and a few drops of the oil on cotton-wool packed in the tooth, and held in place by means of gutta-percha. The pain will vanish in a few minutes, and the plug can be kept in the cavity for days and weeks. The oil is prepared by dissolving one part of dried phosphorus in about eight parts of expressed oil of almonds.—*British Journal of Dental Science.*

Advertising.

Practical Hints on Advertising.

Copyrighted, 1896, by CHARLES AUSTIN DATES,
New York.

An advertisement sometimes makes a man buy that which he does not really want, but it is only because he did not truly understand what the thing was. His purchase was an effort to supply a need which existed before the advertisement was published.

Men frequently think they need things that they do not need, and that they do not want after they have them. There is a continual effort on the part of mankind to supply desires and wants. The right sort of advertising tells how to do this best, quickest, and easiest.

If the ten articles that ten different advertisements refer to were placed on a table before a crowd, one man would select one article and another another. Each man would be governed by his own needs or fancied needs, and would select the thing which seemed best fitted to his purpose.

Advertisements represent goods. The more accurately they represent them, the better advertisements they are. Advertising which misrepresents, either by exaggeration or by inadequacy, is bad advertising.

The nearer an advertisement can get to the plain, naked truth, the more likely it is to be profitable. Newspaper men understand that unreliability in the matter of news is worse than no news at all. Advertisers are learning the same lesson. They have been long in learning it, and the tuition has been very expensive.

Real, honest, scrupulous truthfulness in advertising becomes more and more prevalent as the years go by. It is more common now than it was even a year ago. Five years ago it was very uncommon indeed. It was so uncommon then that even now there are many people who believe that all advertising is more or less disreputable and dishonest.

People will tell you that a man who pays attention to an advertisement certainly has not his full quota of wits. Men turn up their noses at women because women read "bargain" advertisements and pay attention to them. The women know that the advertisements are honest. They have a proof of the honesty in the increased efficiency of their weekly or monthly expenditures. They find that advertised articles are much more likely to be reliable than those that are not advertised. They are learning that advertising is business news and nothing else.

There are still many inaccuracies in advertisements. There is still much exaggeration. The frequent use of superla-

tives is a matter of habit, and it will take some time to get out of it. Each of half a dozen stores in one town claims to be "the best and the cheapest." This is preposterous on the face of it.

The same claims of superiority are made for a dozen pianos, half a hundred toilet soaps, and a score of typewriters. Possibly the maker of each one of these articles honestly believes that his production is more desirable than any other. It is more probable, however, that his conception of advertising is wrong, and that he thinks the only way to create a sale for his goods is to claim for them superlative and transcendent qualities.

The maker of a thoroughly good, moderate-priced article is not content to say so. He thinks that he must claim the same things for his goods which make successful an article that has cost twice as much to build. He does not seem to realize that there are many people who would rather have a tolerably good thing at a tolerably low price than to have the very finest at the very highest price.

There are all kinds of people, and they have all kinds of needs. An article which does not supply some one of these needs cannot be made permanently successful by merely claiming to supply it. Masquerading will not help for very long. A moderate-priced article can be sold to a person who wants that kind, in spite of the ridiculous and unnecessary claims that are made for it. The sale would be easier and quicker and more satisfactory, however, if the plain truth were told at the start.

Good advertising is really telling people what and where and who; telling them what a thing really is, where it may be had, and from whom. That is all there is of it. That is all there ever will be.

There are many and varied ways of conveying this information, but, when all is said, good advertising is this and nothing more. It is a simple, sensible, honest, needful thing. It is as much a part of the production of an article as is the article itself.

It makes no difference to us how good a thing may be if it is a thousand miles away, and there are no means of transportation. It is exactly as if that thing did not exist at all. Its production is not complete until it is placed within our reach, where we can see it, or use it, or hear it, or wear it, or eat it. If we have the transportation and have not the knowledge of its existence, its making and the transportation are of no value whatever. We are just as far from the enjoyment of that thing as if it did not exist. It is really not produced for us until advertising of some kind has told us about it.

Advertising may be done in a thousand ways. Any method which tells anybody about anything is advertising. Advertising may be done by word of mouth, or by word of type. Advertising is anything which conveys a message about a business or a product.

If a man opens a store and tells his friends about it, he is advertising the store.

If he prints his announcement on cards and hands them to passers-by, he is advertising the store.

If he puts a sign above his door, or goods into his window, he is advertising the store.

If he makes a hundred duplicates of this sign and nails them on fences, or dead walls, where people can see them, he is advertising.

If he joins a church or a club, or a secret society, his name and his business will become known, and he will still be advertising.

If he causes his sign or his card to be reproduced and printed in a newspaper, he is doing the same thing that he did when he tacked the sign on the fences, or handed the card to the passer-by. He is putting his sign into the house of every reader of that paper. This hypothetical man is a retail dealer. He is in direct contact with the people to whom he seeks to convey the news of his enterprise. The principle is exactly the same with the maker or handler of goods that are to have a more than local sale.

"Bicycle Teeth."

It may be something peculiar to the Eastern climate, to the dust of the Eastern roads, or to some peculiarity about the Eastern method of riding, but the fact remains that down Philadelphia way bicycle riders are in large numbers affected by what the dentists call "receding gums." The offices of the dentists, according to a Philadelphian's tale, are overrun with wheelmen and wheelwomen who want to know what is the matter with their teeth. They complain that they have more and more exposed ivory surface for every day that they live, and that unless some remedy is speedily found they will all either soon be fang-toothed, or will lose molars, incisors, and canines altogether.

The story goes that it took the dentists a long time to find out that the complaints came only from riders of the wheel. They put two and two together, and have put a peremptory stop to the riding of wheels in the Quaker city until they can evolve a remedy for bicycle teeth.

Chicago dentists laugh at the story, and say that if there are such things as bicycle teeth in Philadelphia they constitute the only thing in which the Quaker city is ahead of Chicago, and they add that they don't believe that they ride fast enough in Philadelphia to injure any part of the anatomy.—*Drug Topics.*

Salol and bromide camphor are incompatible.

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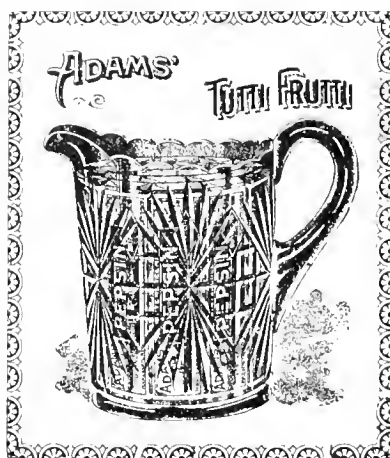
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Formulary.

ROOT BEER.

Of late, extracts of root beer, either in liquid or powdered form, have become popular proprietary preparations. A few of the best formulas are here given:

American sarsaparilla.....	16 ounces av.
Sassafras bark.....	12 "
Dandelion.....	12 "
Sweet flag (calamus).....	5 "
Nutmeg.....	2 "
Oil of wintergreen.....	2 fl. drams
Oil of lemon.....	2 "
Oil of spruce.....	1 "
Caramel coloring.....	1 fl. ounce.
Carbonate of magnesia.....	1 ounce av.
Alcohol.....	4½ pints.
Water, sufficient to make 1 gallon.	

Grind the drugs to a coarse powder; mix four pints of the alcohol with four pints of water; make an extract by water-bath percolation, reserving the first seven pints which pass, and continue the percolation with water until the drugs are exhausted, evaporate this last, percolate to one pint, and add to the reserved extract. Dissolve the oils in eight ounces of alcohol, and mix with the extract. Rub the carbonate of magnesium with a portion of the extract, and add to the remainder; then add the caramel, and, after standing a few days, with occasional agitation, filter.—*The Formulary*.

ELIXIR ANTISEPTIQUE.

Thymic acid.....	30 cgm.
Tincture of eucalyptus.....	10 gm.
Tincture of vanilla.....	10 gm.
Essence of mint.....	150 cgm.
Essence of clove.....	1 gm.
Essence of lemon.....	1 gm.
Alcohol of 90.....	100 gm.
Tincture of cochineal—enough to color a lively red.	

Mix. Twenty drops to a half tumbler of water as a mouth wash.—*Le Monde Pharmaceutique*.

COMPOUND SYRUP OF CAMPHOR.

According to F. J. Kilner, dispenser to the Bristol Royal Infirmary, this compound is prepared as follows:

Acidi benzoici.....	3 dr.
Acidi acetici glacialis.....	3 oz., 5 dr. max.
Aceti scille, B.P.....	40 oz.
Acetiipecacuanhe (B.P. additions).....	40 oz.
Olei anisi.....	
Camphore, aa.....	2 dr.
Tinct. opii, B.P.....	10 oz., 5 dr., max.
Sacchari albi (cryst.).....	28 lbs.
*Sacchari usti, q.s.....	
Aq. dist., ad. cong. iv.....	

Misce. Each fluid dram contains one minim of tinct. opii.

Dose. One teaspoonful occasionally.—*Pharmaceutical Journal*.

SHAMPOO CREAM.

Soap fine white, shaved.....	4 parts.
Rose-water.....	8 "
Ammonia water.....	8 "
Alcohol (or bay rum).....	4 "
Distilled water.....	40 "

*Sufficient to give the mixture the color of tinct. camphore, B.P.

Dissolve the soap in the water by the aid of heat. Let cool down to about 110° or 120°, and add gradually the ammonia, rose water and alcohol, stirring constantly while making the addition.—*National Druggist*.

AROMATIC EXCELSIOR VINEGAR.

Acetic ether.....	1 ounce.
Spirit jasmine (jasmine extract).....	1 "
Acetic acid, best, from sugar, diluted.....	2 ounces.
Tincture benzoin.....	8 "
Oil rose.....	3 drops.
Oil neroli.....	3 "
Oil wintergreen.....	2 "
Cologne spirit.....	8 ounces.

Mix. Let stand and filter.

WHITE GLYCERIN.

1. Sublimate of bismuth.....½ drachm.
Glycerin.....1 fl. ounce.

Mix thoroughly by trituration in a mortar.

2. Cologne.....1 fl. ounce.
Rose water.....1 fl. "
Glycerin.....6 fl. ounces.

Mix.

3. Tincture of benzoin.....1 fl. ounce.
Glycerin.....2 fl. ounces.

Mix.

4. Quince seed.....1 drachm.
Powdered borax.....1 "
Cologne.....1 fl. ounce.
Glycerin.....10 fl. ounces.
Hot water.....4 fl. ounces.

Macerate the quince seed in the water for two hours, strain, and to the mucilage add the other ingredients, and thoroughly mix.—*Meyer Bros. Druggist*.

PERFUME FOR POMADES, HAIR OIL, ETC.

Oil bergamot.....	12 drachms.
Oil citronella.....	6 "
Oil cloves.....	3 "
Oil lavender.....	3 "
Oil thyme.....	1 drachm.
Oil mace.....	1 "

Mix.

One, two, or three drachms of this mixture may be used to a pint of oil or a pound of pomade.

KOLA ELIXIR.

Powdered kola.....	2 oz.
Glycerin.....	14 drs.
Rectified spirit.....	10 "
Cinnamon water.....	6 oz.
Essence of vanilla.....	1 dr.
Tincture of orange.....	1 oz.

Macerate for a week and filter. More essence of vanilla may be added if desired.—*Chemist and Druggist*.

COMPOUND CASCARA MIXTURE.

Ext. cascara sag. liq. misc.....	3 oz.
Ext. senna liq.....	2 "
Ext. euonymi liq.....	1 "
Ext. glycyhiza liq.....	2 "
Saccharin.....	1 dr.
Elixir simplicis ad.....	10 oz.

M.

—*Chemist and Druggist*.

MOSQUITO LION.

Oil of patchouli.....	10 minims.
Oil of cinnamon.....	16 "
Yellow sandalwood.....	6 oz.
Rectified spirit.....	6 "
Water.....	4 "

Macerate for three days and filter.

To be used for sponging on the neck and hands.—*Chemist and Druggist*.

MOTH PAPER.

Carbolic acid.....	1 oz.
Ceresin.....	1 "
Naphthalin.....	2 "

Melt, immerse pieces of bibulous paper, and dry these on plates.

Carbolic acid.....	1 oz.
Camphor.....	1 "
Benzin.....	to make 1 pt.

Saturate pieces of blotting paper, and apply, or use the liquid in the form of spray by means of an atomizer.

PREVENTIVE LOTION AGAINST INSECT BITES.

Acetic ether.....	5 parts.
Eucalyptol.....	10 "
Eau de cologne.....	10 "
Tincture of pyrethrum roseum.....	50 "

One part diluted with three or six parts of water, to be used as a lotion.—*Four. des mal. cutan.*

New Method of Determining the Morphine Value of Opium.

G. Loof, whose method of assaying opium we gave some months ago, contributes to the *Apotheker Zeitung* a simpler and much shorter process, of which we give the essential features, as follows:

Rub up 5 gm. of the opium to be assayed with an equal amount of water, being careful to use no pressure in rubbing. Pour into a weighed flask, rinsing the mortar and adding the rinse water to the contents of the flask. Add sufficient water to bring the amount up to 44 gm. Close the flask and agitate for fifteen minutes. Now add 1 gm. sodium salicylate, shake a few minutes longer, and filter. To 28.5 gm. of the filtrate (which equals 3 gm. of opium), add 3 gm. of ether and 1 gm. ammonia water, and shake together for ten minutes. The separated morphine is collected on a small tarred round filter, and the flask is washed twice with 5 gm. of water each time, using the wash water to rinse the morphine on the filter. After allowing the morphine to dry on the filter, wash it again with benzol to remove the last traces of narcotine, and again let it dry.

The morphine, as thus obtained, is perfectly pure, and appears as elegant shining crystals. The process will show from $\frac{1}{4}$ to $\frac{1}{2}$ per cent. less morphine than the formula given by Loof, but this is compensated for by the greater purity of the product. Assays made after this plan show remarkable consistence, rarely varying as much as $\frac{1}{4}$ of 1 per cent.—*National Druggist*.

Photographic Notes

SULPHATE OF ZINC AS A PRESERVATIVE OF MUCILAGE.—Dr. E. Vogel suggests the addition of a small proportion of sulphate of zinc to mucilage of gum arabic in order to prevent decomposition. Although the addition is said not to interfere with the adhesive property of the gum, the *Amateur Photographer* remarks that it would obviously be inadmissible in some cases where the gum is used for photographic purposes, on account of possible interference with the reactions that take place.

WATERPROOF VARNISH.—The following formula for varnish, well adapted for the protection of prints on glass against humidity, is from *L'Amateur Photographe*: White gum lac, 27 to 32 parts; borax, 8 parts; carbonate of sodium, 2 parts; glycerin, 1 to 2 parts; water, 320 parts. Dissolve the borax and the carbonate in 160 parts of warm water, add to the solution the gum lac, which has been broken into small fragments. Place the vessel containing the mixture on the fire, and stir until the lac is dissolved. Allow to cool, filter, and afterwards add the glycerin and the remainder of the water. At the end of a few hours a deposit is formed, and after filtration the liquid should have an amber-yellow color. The varnish is said to keep well.

PHOTOGRAPHY EXPERIMENT.—At the last meeting of the Academy of Sciences Professor Lippmann referred to an interesting photographic experiment made by M. Pellat. It consisted in placing an iron object on a photographic plate, and leaving them in contact for several months in a dark room. On developing the plate the object was found to be reproduced thereon. M. Pellat thinks this reproduction may be attributed to vapors which the metal probably gives off, and which act on the plate in course of time. Another theory is that the radiations of the metal act on the sensitiveness of the plate.

A MATT BLACK FOR IRON.—According to the *Revue Suisse de Photographie*, a matt black surface on iron can be obtained by the use of the following solution:

Mercuric chloride.....	2 parts.
Cupric chloride.....	1 part.
Hydrochloric acid.....	6 parts.
Alcohol.....	5 parts.
Water.....	50 parts.

The article is carefully cleaned and immersed in the above, or a brush may be used for its application, after which it must be well soaked in hot water. A second application can be given if the color is not dark enough.—*Pharmaceutical Journal*.

A RELIABLE PLATE-BACKING.

Caramel.....	1 oz.
Strong gum arabic solution.....	1 oz.
Burnt sienna (in powder).....	2 oz.
Methylated alcohol.....	2 oz.

Mix thoroughly and apply to the back of the plate with a linen dabber; a very thin coating will be sufficient for the purpose, and it should dry within half an hour. It will prevent halation, and can be easily removed before development by rinsing under a tap and wiping with a sponge.

PYROCATECHIN AS A PHOTOGRAPHIC DEVELOPER.—Pyrocatechin is said to possess the following advantages as a developer: Its delicacy is equal to pyrogallol. The solution only alters very slowly on exposure to air, and is much more stable than hydroquinone, eikonogen, etc. The color of negatives is very favorable to printing, which proceeds more rapidly than with other developers. It gives brilliant prints without hardness. It does not fog the plates. It does not stain the fingers. The same bath will develop several plates. The following are the principal solutions: Solution A: Water, 1 ounce; sodium sulphite, 20 grains; pyrocatechin, 10 grains. Solution B: Water, 1 ounce; potassium carbonate, 100 grains. For use in ordinary exposures, equal parts of A, B, and water. For under-exposed plates, take one part A to two parts B. For plates that have had a timed exposure, the following one-solution developer is recommended: Water, 2 ounces; sodium sulphite, 25 grains; sodium carbonate, 50 grains; pyrocatechin, 10 grains. To bring out contrasts, a two per cent. boric acid solution is recommended instead of bromide.—*Western Druggist*.

CYCLING AND PHOTOGRAPHY.—Perhaps one of the most wonderful signs of late years is the widespread popularity the camera and cycle have attained, nor is it to be wondered at when the pleasure to be derived from indulging in either form of amusement, riding or photographing, is remembered; yet it is a matter of surprise to find the two are not more often combined than is done, considering the vast number of those who now use a cycle as the means of running out into the country for a brief spell. We all know the enjoyment derived in this manner—the delight experienced in passing through a stretch of beautiful scenery, the many pleasant glimpses of rural life obtained, happy groups of children playing in the lanes, cattle and sheep forming bright spots of life in meadows and many other phases of nature which attract us by their beauty and leave pleasant recollections on our mind. Yet at best they are fleeting, and it is in just the ability to secure permanent records of these matters, with which to renew to ourselves and friends, during the dark, dull days of winter time, in some measure the pleasant scenes visited in summer months, that a small, light camera will prove useful. It need be but a compact affair. For convenience a quarter-plate will prove sufficiently large, while with three double dark slides, enabling six plates being carried with a lens and shutter. The whole may be packed in

small case and strapped to the handle bar, the tripod being carried attached to the fork of the machine, without any inconvenience from the trifling addition in weight being felt, for the whole need weigh no more than two or three pounds.—*The Amateur (London) Photographer*.

Flashlight Photography.

By DR. HUGO ERICHSEN.

Generally flashlight photography is supposed to be a suitable pastime for the long winter nights, and it is usually practised only at the time of the year when the ground is covered with snow and Jack Frost is king, and relegated to obscurity as soon as nature again puts on its vernal raiments and outdoor photography becomes possible once more.

I believe this is wrong. In many respects summer is better adapted for taking flashlight pictures than winter, for doors and windows may be opened wide during the warm season for the egress of the stifling smoke that fills the rooms after any considerable use of magnesium powder. Lately, I understand, aluminum has been used for flashlight photography and is said to have been quite satisfactory. It is claimed that it produces less smoke and a light of greater intensity than that of magnesium.

The amateur will do better to purchase his magnesium powder ready made than to attempt to manufacture it himself, for it is made of highly explosive ingredients. Only recently the workshop of a photographer who was compounding some of the dangerous stuff—I think it was in Chicago—was totally wrecked, and the poor fellow was instantly killed and his remains mutilated beyond recognition. Especially those recipes containing chlorate of potassium are exceedingly explosive and should be avoided, and flashlight powders that are known to contain that ingredient should never be used under any circumstances. Amateurs had better leave the manufacture of flashlight powder to those who make a business of it; but, if they should be resolved to make it themselves, I know of no better mixture than the following: Three parts of finely powdered permanganate of potassium to four parts magnesium powder. But even this compound may explode, so that I must repeat my warning. Only to one who does not value his limbs and life is the manufacture of flashlight powder a delightful occupation.

Those who propose to take but a limited number of flashlight photographs will find the Blitz-Pulver cartridges, that may be obtained from any dealer in photographic supplies, of the greatest usefulness. I do not desire to specify any particular kind; those that bear the name of a reputable firm may be relied upon. In igniting these cartridges great care should be taken. After severely burning my fingers in lighting the first one, I evolved a plan which has been successful ever since, and which may prevent others from

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UNITED STATES HEALTH REPORTS (Official Endorsement June 19, 1895, page 10.)

"In the interest of the masses for whom these Reports are compiled, the United States Health Reports have examined and investigate many preparations having for their object the cure of the tobacco habit, but among them all we have no hesitancy in giving the editorial and official endorsement of these Reports to the remedy known as **Uncle Sam's Tobacco Cure**, manufactured by the Keystone Remedy Co., at 217 LaSalle Street, Chicago. We have demonstrated by personal tests that this antidote positively destroys the taste and desire for tobacco in ten days, leaving the system in a perfectly healthy condition, and the person using the same forever free from the habit.

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For Sale by all Wholesale Druggists

burning their digits. I take a long piece of paper, fold it several times, and then place one end of it under the fuse while the other hangs loosely down and is lit when everything is ready for the exposure. This method gives time enough for the photographer to get to a distant part of the room, in case he wishes to photograph himself, or to be included in a group or interior. To one who desires to make many photographs by means of this artificial light, a flashlight lamp becomes indispensable. There are many different designs on the market, varying in price from one to five dollars, but any one possessing ingenuity can make one himself at small expense. The principle is the same in all of them. The component parts of these lamps are a receptacle which holds some material saturated with alcohol, another filled with the magnesium and rubber tubing, and a bulb by means of which the powder is blown through the alcohol flame. Lamps of simple construction are often the best and should be preferred to complicated ones.

Flashlight photography is especially adapted for taking interiors, groups, and portraits. It is impossible to give specific rules, as so much depends on circumstances and individual judgment. The best results will be obtained with rapid plates, quick lenses, and large stops. In taking flashlight photographs of interiors or portraits, I generally focus on a lighted candle, which is held on a plane with the person about to be photographed, or which is placed in the most distant part of the room. It is almost impossible to focus with the ordinary gas or lamplight, but the little scheme with the candle does very well. When the proper focus is obtained, the plate-holder is inserted, the slide drawn, and then everything is ready for the exposure. In making the latter care should be taken to prevent the light rays from entering the lens directly, as this would fog the plate. Whenever possible the flashlight should be touched off at one side and behind the camera, and at a height of four or five feet from the floor.

Portraits and groups are best taken by means of diffused light, which is easily produced by placing a screen of white cloth before the source of light. One of the drawbacks of flashlight photography is the strong contrast which it produces, but this may be obviated to a great extent by giving more than one flash. Reflectors of white cloth and paper are also useful.

In conclusion, I want to say that there are many men who are prevented by their profession or business from photographing in the daytime, but who would find flashlight photography an agreeable pastime that could be practised every night in the year, and would leave an occasional holiday for landscape photography and outdoor work.—*Canadian Photographic Journal*.

To preserve milk for analysis add a small quantity of potassium bichromate.

Magazines.

George W. Smalley, the famous American editor-author, has been granted a two months' holiday by his paper, the *London Times*, and has gone abroad on a special mission for *The Ladies' Home Journal*. He has engaged to prepare a short series of articles for that magazine, and is gathering the material for them in Europe. The work will necessitate his spending part of the summer in England, and the remainder in Germany.

Ian Maclaren's new short story, the last he will write until after his American visit, has been secured by *The Ladies' Home Journal*, for publication in the October and November issues. It is called "The Minister of St. Bede's," and is said to be in the brightest and cleverest Maclarenesque vein. Besides its charm as a delightful romance, the story is said to be notable for the admirable character that the author has created for the chief personage—the minister of St. Bede's, as the loyal lover of a humble Scotch lassie.

Amongst the Wholesalers.

Choice Holiday Goods.

Amongst the new goods designed for the holiday trade one of the choicest lines is that of crystal glass boxes in various designs, and which are bound, in a great measure, to take the place of plush and xylonite goods. These may be had in collar and cuff boxes, glove and handkerchief cases, work boxes, jewel cases, comb



and brush boxes, shaving cases, etc., in all shapes, round, square, octagon, and diamond, and are bound with ribbon of assorted colors. They are substantially made, hand painted, and, altogether, amongst the prettiest things we have seen. They range in price from eighty-five cents to five dollars each. The illustration given is of a combination set, pattern No. 14. Messrs. Nerlich & Co., Front street west, are sole agents and manufacturers of

these goods, and will be glad to receive mail orders. This firm has also a very choice assortment of smokers' sundries, pipes, etc.

For Fall and Winter.

Nothing could be more seasonable for display by druggists than a line of chest protectors, chamois vests, etc. It does not pay either the customer or the retail druggist to wait until cold weather sets in to provide themselves with these goods. It is "the sudden chill that causes the sudden ills," and at no time are these goods more necessary for persons of a delicate constitution than during the changeable weather of autumn. We have been shown by Messrs. Lyman, Knox & Co., of this city, the new "Frost King" chamois vests, which appear to us the most desirable of any of this class of goods. Being made reversible, of the very best materials, and with such due regard to "fit," they are certainly sure to give satisfaction to the wearer. This firm have a very complete assortment of these lines put up in a box containing six chamois vests, "Frost King," four cuirass chest protectors, and two each double and single chamois protectors, all assorted sizes, which will cost the retailer \$21.37. These goods will allow a liberal profit, and should be sure sellers. Drop a card to Lyman, Knox & Co., Toronto or Montreal, for particulars of assortment.

Lyman Bros. & Co.'s Annual Road Race.

The second annual road race of the Lyman Bros. & Co., Ltd., employees will take place at the Woodbine Park on Saturday, September 19th, at 3 p.m.

First race — 1 mile open — 2 prizes: 1st and 2nd.

Second race — 1/2 mile, open to messenger boys: 1st prize.

Third race — 10 mile handicap — 3 prizes: 1st, 2nd, and time prize.

Fourth race — 1/4 mile slow race, open: 1 prize only.

Rules—(1) Decision of judges will be final. (2) No one will receive more than one prize in one race. (3) Fouling disqualifies.

Starters—G. H. Leslie, T. J. MacIntyre.

Judges—G. W. Lillie, C. McD. Hay, James Watt.

Timers—J. B. Henderson and John Massey.

Committee of Management—G. H. Leslie, W. G. Noble, E. N. Tyrrell, H. J.

Fidler, F. Holliday, O. Flett, and T. M. Hagarty, chairman.

Pharmaceutical Association of the Province of Quebec.

NOTICE TO STUDENTS.

The semi-annual examinations for major and minor candidates will commence on Tuesday, October 13th, 1896, at 9 a.m., and will be held in Laval University, Quebec. Candidates must file their applications, duly certified, with the registrar on or before the 3rd of October. Printed regulations and form of application must be obtained from the registrar, and be duly signed by the applicant.

Candidates who have failed more than once in their examinations will be required to pay the full examination fee.

No applications for these examinations will be received after the 3rd of October, and candidates remitting their examination fees must do so in funds payable at par in Montreal. American money not taken for fees.

E. MUIR, Registrar,
595 Lagauchetiere Street.
Montreal, September 5th, 1896.

A. Ph. A. Notes.

Professor Good makes a model chairman.

The attendance was disappointing, not over 100 actual members registering.

A number of leading pharmacists of Ontario were present during the proceedings.

Representatives were on hand from the *Pharmaceutical Journal* and the *CANADIAN DRUGGIST*.

The proposition to hold a mid-Atlantic session in 1900 was well received, although to some it brought remembrances of *mal de mer*.

The *CANADIAN DRUGGIST*, with its usual enterprise, was enabled to furnish a summary of the first and second days' proceedings, and mail the *DRUGGIST* on the usual day of publication, the 15th of August.

Messrs. Desbarats & Co. published a very pretty souvenir for the convention. The letter-press was excellent, and the photo-engravings with which it was interspersed were all of a high class of workmanship.

C. D. probabilities: A. Ph. A. meetings—1897, at Lake Minnetonka, Minn.; 1898, at New York; 1899, at Baltimore; 1900, in mid-ocean, en route to the Paris International Exhibition.

How to Pronounce "Pharmaceutical."

A correspondent of the Montreal *Daily Star* asks for the correct pronunciation of the word "pharmaceutical," to which the editor of that paper replies as follows:

If by "correct pronunciation" my correspondent merely means the mode gen-

erally prevailing, I think there can be little doubt on the subject. Not to go farther back than the time of Dr. Johnson, his famous dictionary gives the soft sound to the letter "c" in the word. In this he is followed by the later lexicographers, Noah Webster, Chambers, the Rev. Jas. Stormonth, and Cassell's "Encyclopedic Dictionary," a most valuable work in seven volumes.

Funk's Standard Dictionary (of which the *Star* is preparing a careful notice) gives the soft pronunciation of the "c," as preferable, with the alternative of the "k" sound. Mr. W. H. P. Phyfe, in an admirable work entitled "Seven Thousand Words Often Mispronounced," mentions only one pronunciation, viz., "far-ma-su'-tist," and most of the best dictionaries follow suit. The original "Pharmaceutical Society" was commenced in London, June 1, 1841, and obtained a royal charter on February 18, 1843. It is empowered to institute examinations for those who desire to practise pharmacy; and as at the time it was formed the "c" in its title was always pronounced "s," I see no reason for any innovation of the present day. Personally, I never heard the "k" sound of the "c" in England. Can anyone mention another instance of "cent" being pronounced "cute"? The little beetle called "ceutorhynchus didymus," so frequently found on the stinging nettle, is, so far as I know, always pronounced "sutorhynchus" by entomologists.

Answer to Correspondent.

A. C. Hess asks what is meant by the words "a ruled screen" in the article on "A Simple Photo-engraving Method." A ruled screen is made by getting two square pieces of glass with parallel lines cut with a diamond and inlaid with some dark substance. These lines average about 133 to one inch space. The pieces of glass are so placed one over the other as to make the lines form right angles. This forms the background for the photo-engraving.

Wood alcohol can be deodorized by treating it with caustic soda and potassium permanganate and subsequent distillation. One ounce of the soda to every gallon of alcohol will be found sufficient. After distillation in a water bath or still, redistill with the potassium permanganate, one drachm to the gallon.

"Surf" Sea Salt

is a new 15c. pkg., put up in 1 doz. 5 lb. pkgs., per case, price, \$1; per gross (12 cases) \$11. Wholesale houses sell it. Pkg. is a new patent cardboard one, and handsomely printed. Sales of first week in Toronto 120 cases. The salt is clear as glass and of a size that dissolves readily. It never gets damp, and contains no dirt or grit. Analyzes 99.98 per cent. pure salt. You can work up a good salt trade if you try. Why not do it?

TORONTO SALT WORKS, Toronto, Importers.



WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc., will be inserted once free of charge. Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.

SITUATIONS WANTED.

SITUATION WANTED as Manager or Assistant by S. Medallist of O.C.P. Good dispenser and Manufacturer; experience with books and stationery; best of references. Address Box 238, Watford, Ont.

WANTED—An Improver, two or three years' experience. Must have had some experience in dispensing. Apply, stating salary expected, to Broadway Pharmacy, 367 Broadway Avenue.

FOR SALE.

A WELL-ESTABLISHED AND PAYING DRUG business in N.W. Territories, the only one in the town and having other sources of revenue in connection with it. Stock small and in good condition. Also dwelling above, nicely decorated and in good order. The business and property must be sold together. Good reasons for selling. Address, in first instance, Box 46, CANADIAN DRUGGIST.

Southern Asthma Cure

(LIQUID)

CURES ASTHMA, ROSE
COLD, HAY FEVER, Etc.



The Best Remedy for Asthma
Ever Discovered.



Price, \$1 per bottle



JAMES A. KENNEDY & CO.,

WHOLESALE DRUGGISTS

342 Richmond St., - LONDON

Wholesale Agents for the Dominion.

SEELY

The American Perfumer

We desire to notify the Trade that our representatives are now showing the Finest line of Holiday Perfumes and Novelties yet shown by them.

Every Druggist in the Dominion will consult his interests by making an effort to see the line.

If our Representatives do not call regularly on you, please notify us and we will arrange to see you.

WE SELL TO THE DRUG TRADE ONLY

SEELY MANUFACTURING COMPANY

—ESTABLISHED IN 1862—

Detroit, Mich.

Windsor, Ont.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to September 10th, 1896.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal.....	\$4 37	\$4 65
Methyl.....	1 90	2 00
ALLSPICE, lb.....	13	15
Powdered, lb.....	15	17
ALON, oz.....	40	45
ANODYNE, Hoffman's bot., lbs...	50	55
ARROWROOT, Bermuda, lb.....	50	55
St. Vincent, lb.....	15	18
BALAM, Fir, lb.....	40	45
Copaiba, lb.....	65	75
Peru, lb.....	3 75	4 00
Tolu, can or less, lb.....	95	1 00
BARK, Barbary, lb.....	22	25
Bayberry, lb.....	15	18
Buckthorn, lb.....	15	17
Canella, lb.....	15	17
Cascara, Sagrada.....	25	30
Cascarilla, select, lb.....	18	20
Cassia, in mats, lb.....	18	20
Cinchona, red, lb.....	60	65
Powdered, lb.....	65	70
Yellow, lb.....	35	40
Pale, lb.....	40	45
Elm, selected, lb.....	18	20
Ground, lb.....	17	20
Powdered, lb.....	20	28
Hemlock, crushed, lb.....	18	20
Oak, white, crushed lb.....	15	17
Orange peel, bitter, lb.....	15	16
Prickly ash, lb.....	35	40
Sassafras, lb.....	15	16
Soap (quillaya), lb.....	13	15
Wild cherry, lb.....	13	15
BEANS, Calabar, lb.....	45	50
Tonka, lb.....	1 50	2 75
Vanilla, lb.....	8 50	9 00
BERRIES, Cubeb, sifted, lb.....	30	35
powdered, lb.....	35	40
Juniper, lb.....	7	10
Ground, lb.....	12	14
Prickly ash, lb.....	40	45
BUDS, Balm of Gilead, lb.....	55	60
Cassia, lb.....	25	30
BUTTER, Cacao, lb.....	75	80
CAMPHOR, lb.....	65	75
CANTHARIDES, Russian, lb.....	1 40	1 50
Powdered, lb.....	1 50	1 60
CAPRICUM, lb.....	25	30

Powdered, lb.....	\$ 30	35
CARBON, Bisulphide, lb.....	17	18
CARMINE, No. 40, oz.....	40	50
CASTOR, Fibre, lb.....	20 00	20 00
CHALK, French, powdered, lb.....	10	12
Precip., see Calcium, lb.....	10	12
Prepared, lb.....	5	6
CHARCOAL, Animal, powd., lb.....	4	5
Willow, powdered, lb.....	20	25
CLOVE, lb.....	16	17
Powdered, lb.....	17	18
COCHINEAL, S.G., lb.....	40	45
COLLODION, lb.....	75	80
Cantharidal, lb.....	2 50	2 75
CONFECTION, Senna, lb.....	40	45
CREOSOTE, Wood, lb.....	2 00	2 50
CUTTLEFISH BONE, lb.....	25	30
DENTRINE, lb.....	10	12
DOVER'S POWDER, lb.....	1 50	1 60
ERGOT, Spanish, lb.....	75	80
Powdered, lb.....	90	1 00
Ergotin, Keith's, oz.....	2 00	2 10
EXTRACT LOGWOOD, bulk, lb.....	13	14
Pounds, lb.....	14	17
FLOWERS, Amica, lb.....	15	20
Calendula, lb.....	55	60
Camomile, Roman, lb.....	25	30
German, lb.....	40	45
Elder, lb.....	20	22
Lavender, lb.....	12	15
Rose, red, French, lb.....	1 60	2 00
Rosemary, lb.....	25	30
Saffron, American, lb.....	65	70
Spanish, Val'a, oz.....	1 00	1 25
GELATINE, Cooper's, lb.....	75	80
French, white, lb.....	35	40
GLYCERINE, lb.....	22	25
GUARANA.....	200	2 25
Powdered, lb.....	2 25	2 50
GUM ALOES, Cape, lb.....	18	20
Barbadoes, lb.....	30	50
Socotrine, lb.....	65	70
Asafetida, lb.....	40	45
Arabic, 1st, lb.....	70	75
Powdered, lb.....	80	95
Sifted sorts, lb.....	45	50
Sorts, lb.....	30	35
Benzoin, lb.....	50	1 00
Catechu, Black, lb.....	9	20
Gamboge, powdered, lb.....	1 20	1 25
Guaiac, lb.....	50	1 00
Powdered, lb.....	90	95
Kino, true, lb.....	2 00	2 25

Myrrh, lb.....	\$ 45	\$ 48
Powdered, lb.....	55	60
Opium, lb.....	4 25	4 50
Powdered, lb.....	5 25	5 50
Scammony, pure Resin, lb.....	12 80	13 00
Shellac, lb.....	40	45
Bleached, lb.....	45	50
Spruce, true, lb.....	30	35
Tragacanth, flake, 1st, lb.....	85	90
Powdered, lb.....	1 10	1 25
Sorts, lb.....	55	70
Thus, lb.....	8	10
HERE, Althea, lb.....	27	35
Bitterwort, lb.....	36	40
Burdock, lb.....	16	18
Boneset, ozs, lb.....	15	17
Catnip, ozs, lb.....	17	20
Chiretta, lb.....	25	30
Coltsfoot, lb.....	20	38
Feverfew, ozs, lb.....	53	55
Grindelia robusta, lb.....	45	50
Horehound, ozs, lb.....	18	20
Jaborandi, lb.....	45	50
Lemon Balm, lb.....	38	40
Liverwort, German, lb.....	38	40
Lobelia, ozs, lb.....	15	20
Motherwort, ozs, lb.....	20	22
Mullein, German, lb.....	17	20
Pennyroyal, ozs, lb.....	18	20
Peppermint, ozs, lb.....	21	22
Rue, ozs, lb.....	30	35
Sage, ozs, lb.....	18	20
Spearmint, lb.....	21	25
Thyme, ozs, lb.....	18	20
Tansy, ozs, lb.....	15	18
Wormwood, oz.....	20	22
Yerba Santa, lb.....	38	44
HONEY, lb.....	13	15
Hops, fresh, lb.....	20	25
INDIGO, Madras, lb.....	75	80
INSECT POWDER, lb.....	35	38
ISINGLASS, Brazil, lb.....	2 00	2 10
Russian, true, lb.....	6 00	6 50
LEAF, Aconite, lb.....	25	30
Bay, lb.....	18	20
Belladonna, lb.....	25	30
Bucha, long, lb.....	50	55
Short, lb.....	25	27
Coca, lb.....	35	40
Digitalis, lb.....	15	20
Eucalyptus, lb.....	18	20
Ilyoscyamus.....	20	25
Matico, lb.....	70	75

The Cod Fisheries of Norway.

The following tabulated report of the production of cod-liver oil and livers for industrial oils from 1888-1896 has been compiled from official reports by Joh. Rye Holmboe, cod-liver oil exporter, Tromsø, Norway, and will be found interesting as affecting the prices in these oils.

A. CATCH OF CODFISH — IN THOUSANDS.

District.	1888	1889	1890	1891	1892	1893	1894	1895	Average 1888-95	1896
Lofoten.....	28300	18000	30000	21000	16250	27000	28300	38600	25919	18000
Vesteraalen & south dists	21775	18120	19654	11368	21394	26143	22527	17926	19865	15336
Finmarken.....	8686	21300	13652	11868	20000	15776	13499	9057	14230	16371
	58761	57420	63306	44236	57644	68019	64226	66583	60014	49707

B. PRODUCTION OF COD-LIVER OIL — IN HECTOLITERS.

The above figures represent crude oil. 100 hectoliter crude will give from 70 to 75 barrels refined oil.

District.	1888	1889	1890	1891	1892	1893	1894	1895	Average 1888-95	1896
Lofoten.....	16100	12900	16700	18200	8100	18600	12300	12300	14400	8850
Vesteraalen & south dists	12427	8019	11707	7115	10320	13200	6758	4261	9226	5219
Finmarken.....		4267	1400	772	3899	2076	4168	2831	2723	9625
	28527	25186	29807	26087	22319	33876	23226	19302	26349	23694

C. YIELD OF LIVERS FOR OTHER OILS — IN HECTOLITERS.

100 hectoliters raw livers give about 40 barrels oil (about one-third each of raw medicinal, light and light brown) and 10 barrels boiled (black) tanner's oil (bruntran).

District.	1888	1889	1890	1891	1892	1893	1894	1895	Average 1888-95	1896
Lofoten.....	38000	23500	58500	22700	23000	31500	14000	11000	27778	3450
Vesteraalen & south dists	23557	41213	39098	21272	39981	50436	21273	8710	30693	7826
Finmarken.....	20293	58925	38104	29172	54148	35044	15600	3400	36211	8021
	81850	123638	135702	73144	117129	116980	50873	23110	94682	9297

As will be seen from the above, the production of cod-liver oil this year, stimulated by the high prices in March and April, exceeds that of last year, and approaches the average of the preceding eight years.

These figures, however, should be considered in connection with the following facts:

- (1) That the exceptionally small production of raw medicinal oil (see table C) necessarily opens for cod-liver oil several continental markets which have hitherto stuck to raw oil.
- (2) That stocks of cod-liver oil at the commencement of 1895 were practically cleared, which shows that the world's consumption has been able to do away with 57,000 hectl. in the two years 1893-94, whilst 1895-96 have only produced 43,000 hectl.

As far as can be ascertained, all stocks in Norway are now on the hands of export houses, who will do their best to avoid severe losses on their Lofoten stocks.

A brisker demand has manifested itself lately, and the general prospects for the autumn campaign are for a livelier market with somewhat higher prices.

Tromsø, July 31st, 1896.

JOH. RYE HOLMBOE.

Spanish Prescriptions.

By GEORGE FOY, F.R.C.S., Surgeon to the Whitworth Hospital, Drumcondra.

PHARYNGEAL SPRAY.

Iodine.....25 centigrms.
Carbolic acid.....25 "
Potassium iodide.....25 "
Glycerine.....5 grms.
Distilled water.....30 "

Mix.

To be sprayed on the inflamed tissues occasionally.—*El Eco del Consultorio*

MOUTH WASH.

Saccharine.....1 grm.
Soda bicarbonate.....1 "
Salicylic acid.....4 grms.
Alcohol.....200 "

Make a solution.

A few drops in water to be used as a gargle.

ANODYNE OINTMENT.

Hydrochlorate of cocaine.....30 centigrms.
Eucalyptol.....20 drops,
Lanoline.....30 grms

Make an ointment.

Recommended for a nose pigment in hay fever and before minor operations in the nose.

NASAL OINTMENT.

Eucalyptol.....1 to 4 grms.
Lanoline.....30 grms.
Mix.

A useful application in *rinitis sicca*.

SYRUP OF EUCALYPTUS.

Dried leaves of eucalyptus.....30 grms.
Water.....690 "
Loaf sugar.....1,240 "

Make an infusion; strain it through serge with slight pressure; allow the sediment to subside; add the sugar and dissolve by heat of a water-bath.

SYRUP OF RHATANY.

Extract of rhatany.....12 grms.
Water.....115 "
Loaf sugar.....220 "

Dissolve the extract in water; filter the liquid; add the sugar, and make the syrup without heat.

SYRUP OF COMFREY.

Prepared from the root of the comfrey in the same way as syrup of marshmallow.

SYRUP OF COLTSFOOT.

Prepared with the dried leaves of the plant.

SYRUP OF RASPBERRIES.

White sugar.....1,000 grms.
Raspberries.....520 "
Water.....345 "

Dissolve the sugar in the water with a gentle heat; add the raspberries; and after a slight simmer strain, without pressure, through serge.

Syrup of strawberry is prepared in the same way.

SYRUP OF GUM.

White gum arabic.....90 grms.
Water.....90 "
Simple syrup.....600 "

Dissolve the gum in water; strain through serge; mix with boiling syrup.

SYRUP OF CINCHONA.

Cinchona loza in powder.....115 grms.
White wine.....1,035 "
Alcohol, 90 per cent.....85 "
Loaf sugar.....1,550 "

Macerate the quinine for 24 hours in the mixture of wine and alcohol; filter; add the sugar, and dissolve without heat.

Syrups of gooseberry, lemon, quince, mulberry, and pomegranate, are prepared with juice of the fruit as verjuice syrup.

Syrup of the blue violet, syrup of heartsease, syrup of ground ivy, and syrup of sarsaparilla, all find a place in the *Pharmacopœia*.—*Translated for The Medical Press and Circular*.—*British and Colonial Druggist*.

The Chemists' Exhibition, organized by the *British and Colonial Druggist*, opened on Monday, August 24th, in the National Skating Palace, London, Eng., and was, we are informed, a decided success, both in the number and variety of exhibits and the attendance of pharmacists from all over the country. It is intended to make it a permanent annual exhibition, and its promoters are to be congratulated on the idea of its conception and the success which has attended their efforts.

Iodide, Proto, oz.....	\$ 35	\$ 40
Bin., oz.....	25	30
Oxide, Red, lb.....	1 15	1 20
I'll (Blue Mass), lb.....	70	75
MILK SUGAR, powdered, lb.....	30	35
MORPHINE, Acetate, oz.....	1 80	1 85
Muriate, oz.....	1 80	1 85
Sulphate, oz.....	1 90	1 90
PEPSIN, Saccharated, oz.....	35	40
PHENACETINE, oz.....	40	42
PHLOCARPINE, Muriate, grain.....	35	38
PIPERIN, oz.....	1 00	1 10
PHOSPHORUS, lb.....	60	1 10
POTASSA, Caustic, white, lb.....	60	65
POTASSIUM, Acetate, lb.....	35	40
Bicarbonate, lb.....	15	17
Bichromate, lb.....	14	15
Bitrat (Cream Tart.), lb.....	29	30
Bromide, lb.....	65	70
Carbonate, lb.....	12	13
Chlorate, Eng., lb.....	18	20
Powdered, lb.....	20	22
Citrate, lb.....	70	75
Cyanide, lb.....	40	50
Hypophosphites, oz.....	10	12
Iodide, lb.....	4 00	4 10
Nitrate, gran, lb.....	8	10
Permanganate, lb.....	40	45
Prussiate, Red, lb.....	50	55
Yellow, lb.....	32	35
And Sod. Tartrate, lb.....	25	30
Sulphuret, lb.....	25	30
PROPYLAMINE, oz.....	35	46
QUININE, Sulph., bulk.....	34	37
Ozs., oz.....	37	41
QUINIDINE, Sulphate, ozs., oz.....	16	20
SALICIN, lb.....	75	4 00
SANTONIN, oz.....	20	22
SILVER, Nitrate, cryst, oz.....	90	1 00
Fused, oz.....	1 00	1 10
SODIUM, Acetate, lb.....	30	35
Bicarbonate, kgs., lb.....	2 75	3 00
Bromide, lb.....	65	70
Carbonate, lb.....	3	6
Hypophosphite, oz.....	10	12
Hyposulphite, lb.....	3	6

Iodide, oz.....	\$ 40	\$ 43
Salicylate, lb.....	1 00	1 10
Sulphate, lb.....	2	5
Sulphite, lb.....	8	10
SOMNOL, oz.....	85	00
SPIRIT NITRE, lb.....	35	65
STRONTIUM, Nitrate, lb.....	18	20
STRYCHNINE, crystals, oz.....	80	85
SULFONAL, oz.....	40	42
SULPHUR, Flowers of, lb.....	2 1/2	4
Pure precipitated, lb.....	13	20
TARTAR EMETIC, lb.....	50	55
THYMOL (Thymic acid), oz.....	55	60
VERATRINE, oz.....	2 00	2 10
ZINC, Acetate, lb.....	70	75
Carbonate lb.....	25	30
Chloride, granular, oz.....	13	15
Iodide, oz.....	60	65
Oxide, lb.....	13	60
Sulphate, lb.....	9	11
Valerianate, oz.....	25	30

ESSENTIAL OILS.

Oil, Almond, bitter, oz.....	75	80
Sweet, lb.....	50	60
Amber, crude, lb.....	40	45
Rec't, lb.....	60	65
Anise, lb.....	3 75	3 90
Bay, oz.....	50	60
Bergamot, lb.....	3 75	4 00
Cade, lb.....	90	1 00
Cajuput, lb.....	1 60	1 70
Capsicum, oz.....	60	65
Caraway, lb.....	2 75	3 00
Cassia, lb.....	3 30	3 50
Cedar.....	55	85
Cinnamon, Ceylon, oz.....	2 75	3 00
Citronella, lb.....	80	85
Clove, lb.....	1 10	1 20
Copaiba, lb.....	1 75	2 00
Croton, lb.....	1 50	1 75
Cubeb, lb.....	2 50	3 00
Cumin, lb.....	5 50	6 00
Erigeron, oz.....	20	25
Eucalyptus, lb.....	1 50	1 75
Fennel, lb.....	1 60	1 75

Geranium, oz.....	\$1 75	\$1 80
Rose, lb.....	3 20	3 50
Juniper berries (English), lb.....	4 50	5 00
Wood, lb.....	70	75
Lavender, Chiris. Fleur, lb.....	3 00	3 50
Garden, lb.....	1 50	1 75
Lemon, lb.....	1 90	2 00
Lemongrass, lb.....	1 50	1 60
Mustard, Essential, oz.....	60	65
Neroli, oz.....	4 25	4 50
Orange, lb.....	2 75	3 00
Sweet, lb.....	2 75	3 00
Origanum, lb.....	65	70
Patchouli, oz.....	80	85
Pennyroyal, lb.....	2 50	2 75
Peppermint, lb.....	3 00	3 25
Pimento, lb.....	2 60	2 75
Rhodium, oz.....	80	85
Rose, oz.....	7 50	11 00
Rosemary, lb.....	70	75
Rue, oz.....	25	30
Sandalwood, lb.....	5 50	7 50
Sassafras, lb.....	75	80
Savin, lb.....	1 60	1 75
Spearmint, lb.....	3 75	4 00
Spruce, lb.....	65	70
Tansy, lb.....	4 25	4 50
Thyme, white, lb.....	1 80	1 90
Wintergreen, lb.....	2 75	3 00
Wormseed, lb.....	3 50	3 75
Wormwood, lb.....	4 25	4 50

FIXED OILS.

CASTOR, lb.....	9	12
COD LIVER, N.F., gal.....	2 25	2 30
Notwegian, gal.....	3 00	3 25
COTTONSEED, gal.....	1 10	1 20
LARD, gal.....	90	1 00
LINSEED, boiled, gal.....	62	65
Raw, gal.....	60	62
NEATSFOOT, gal.....	1 20	1 30
OLIVE, gal.....	1 20	1 25
Salad, gal.....	2 50	2 60
PALM, lb.....	12	13
SPERM, gal.....	1 35	1 40
TURPENTINE, gal.....	60	65

Drug Reports.

Canada.

The holiday season is not usually a busy one. Last month has been quite up to the average.

Opium, every indication is higher prices. Look out for adulterated gum.

Quinine has declined in price. The reason, so far, is not known here, and the outlook is uncertain.

Balsam tolu is higher.

Glycerine. The indications are it will continue to bring high prices.

Camphor is stiffer in price.

Ipecac is higher.

Acetanilid is a trifle higher.

Menthol is easier.

Insect powder much advanced.

England.

London, Aug. 27, 1896.

The chemical and drug markets are always quiet at this time of the year, and business is very dull.

Camphor has given way still further. Quinine is also steadily on the down grade; competition between English and German manufacturers forcing down the price. Cod-liver oil is lower, and with only a small demand. New otto has just

arrived, but prices are not fixed; well-known firms are, however, accepting lower rates. Balsam tolu dearer, copaiba easier. Oil of aniseed is marked up, though cassia is down. As usual, at the close of the season, tartaric and citric acids are lower.

Be a Merchant.

These are "merchant times" in the drug business, and he who trims his sails to the coming breeze will surely get the advantage of being among the first to move in the right direction. The trend of the times is toward consolidation, and "only a chemist" will bring a man in but very few dollars. Better to adapt yourself to the conditions existing and try to be near the head of the procession as it passes on. Keep in your store what is asked for, or liable to be, even if it is postage stamps or fishing tackle, cutlery or stationery. There is profit in these goods, and that is what you are in business for, or should be. An honorable profession is very nice, but in the drug business it cuts a very small figure in producing bread for your family. There is not enough "profession" to go round, but there is enough "honorable business," if you make an effort to keep it in the drug stores and not drive it away.—*Boston Drug Market.*



OUR PRINTING



Is artistic

OUR BINDING



Is handsome and durable

OUR CHARGES



Are moderate

We would like to have your patronage

The Bryant Press,
Toronto.

Printers of THE CANADIAN DRUGGIST.



Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VIII.

TORONTO, OCTOBER, 1896.

No. 10

"APENTA"
THE BEST NATURAL APERIENT
WATER.

Bottled at the **UJ HUNYADI**
SPRINGS, Buda Pest, Hungary.
Under the absolute control of the Royal
Hungarian Chemical Institute (Ministry of
Agriculture), Buda Pest.

"APENTA"
THE BEST NATURAL APERIENT
WATER.

"We know of no stronger or more
favourably-constituted Natural Aperient
Water than that yielded by the Uj Hunyadi
springs."

L. Lieberman

Royal Councillor, M.D., Professor of Chemistry,
and Director of the Royal Hungarian State
Chemical Institute (Ministry of Agriculture),
Buda Pest.

"APENTA"
THE BEST NATURAL APERIENT
WATER.

By instructions from the Apollinaris Company,
limited, now offered to the Trade at

\$5.50 per case of 25 large glass bottles.
\$8.00 " 50 small " "
\$8.00 " 100 glass quarter "

SHOULD THE PRICE OF

"APENTA"

be reduced, we guarantee to allow such reduction
to our Buyers on their unsold stock, and, as far as
possible, to secure a corresponding reduction to
retailers upon their unsold stock.

SOLE EXPORTERS:

THE APOLLINARIS COMPANY, Ltd.,
LONDON.

CANADIAN SUB-AGENTS:

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Montreal.

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

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5th of the month.

New advertisements or changes to be addressed

Canadian Druggist,

1112 RICHMOND ST. WEST,
TORONTO, ONT.

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An Evil and its Origin.

The unsatisfactory condition of the
drug business, with an outlook of quite
as unassuring a nature, naturally makes
one look for the causes which have led
to these conditions. It is not our inten-
tion now to dilate upon all the circum-
stances which, in our opinion, have led
up to the present state of affairs, but
merely to take cognizance in this article
of *one* of the causes, and that one, per-
haps, rather frequently written upon, but
which, it must be apparent to all, is one
of the greatest, if not *the* greatest, hind-
rances to successful business. We refer
to the evil of "cutting" prices.

In the first place, this evil has origi-
nated where the strongest competition
existed. We have all been willing to
blame, and quite justly so, the depart-
mental stores for the general slaughter in
prices which they indulge in; but we are
free to admit the reprehensible practice
did not originate with them.

Selling proprietary medicines at less
than their advertised prices prevailed
amongst members of the drug trade be-
fore the "stores" introduced these lines
at all, and they are only copying, but to a
more vicious extreme, the business princi-
ples, or, perhaps, we should say, the *un-*
business-like principles, which were insti-
tuted by men who now are getting a dose
of their own medicine by having their
business drawn away from them by apt
pupils. As long as the writer has been
in the drug business, now nearly thirty
years, this practice of "cutting" has pre-
vailed more or less, and as "evil com-
munications corrupt good manners," so
the little, petty cutting of the grasping
man, who would seek by this manner of
doing business to "steal" away custo-
mers from his fellow-druggist, has grown
to such proportions as to threaten to
demoralize the whole trade.

One of the most potent factors in this
establishment of unbusiness-like principles
is no doubt due to the fact that the drug

business, not unlike many others, is being overdone. The elevation of the standard of education, the alluring prospect of college life and a "professional" career, and the illusion of Phm. B. dangling before their eyes, has, we are confident, induced many young men to embark in the drug business without a due foresight into the future. Our colleges are turning out hundreds of thoroughly educated young pharmacists, who are quite the equal of those to be found either in Europe or elsewhere in America, until it has come to be a fact that the supply is larger than the demand. These young men must either go into business for themselves or look up situations elsewhere. Many of these graduates of pharmacy, becoming allured with city life, commence a business, aided financially, too frequently, by the jobbing houses, and in a very short time many of them, as well as those longer in business, find competition so keen, and the volume of business so largely divided, that the inevitable "cutting war" commences, and there is a struggle for survival.

In Toronto, for instance, there are fully three times as many drug stores as necessity demands, and this fact, together with the existence of several departmental stores, whose avowed purpose is to sell cheaper than any one else, has created such a thorough demoralization of prices in many lines that the druggist who may be dependent on the ordinary sales outside of his prescription department finds it a very difficult matter to make ends meet.

The efforts put forth by the newly organized Society of Retail Druggists have, no doubt, done much to suppress the spread of cut-rates throughout this province, but much remains to be done, especially by individual members of the trade, in acting squarely and honorably by each other, and by united effort in upholding those who would do business in a way which would not only be creditable to themselves, but a means of driving out of the ranks the "traitors" who would sacrifice everyone without, in the end, benefiting themselves.

The "departmental store" is, no doubt, one of the worst factors with which we have to deal now, for it affects not only the business in the place where it is situated, but its influence is felt throughout the province at large. Its insidious advertisements, its appeals to ignorant purchasers, its protestations against "monopoly"—itself the greatest "mon-

opoly" octopus in existence; all these things make it the most formidable antagonist to those who would do business on business-like principles, on the basis of "live and let live."

That these "stores" should be allowed to carry on business as druggists merely because they are limited liability companies—the manager of the drug department being supposed to hold some stock in the concern, while single individuals are prosecuted unless they are registered druggists—is an anomaly which appears to us very inconsistent with law or justice, and we trust that the test case which the Council of the Ontario College of Pharmacy has instituted against one of these companies will be pushed vigorously, and if the law, as it now stands, will not prevent this strange interpretation of the Act, that legislation will be asked for in order to give druggists that protection which the Act certainly *intended*, even if it does not now possess.

In speaking of the cut rate problem, the *California Druggist* holds out encouragement to the druggist who can command the respect and confidence of his customers. There is no doubt that in a majority of cases those druggists who started out with the deliberate intention of cutting prices, and endeavored to maintain a business in that way, have come to grief. Our contemporary says:

Looking at the cut-rate problem from what seems to us a common sense standpoint, we are led to the conclusion that (barring departmental stores) wherever capital has been invested with the special object of conducting a cut-rate drug business, that same capital, energy, and business capacity would have been quite as well rewarded without the cut-rate features. The public is as easily influenced by the elegant and attractive display, the large store, the systematic arrangement, the liberal advertising, and the polite attention *without* as *with* the cut-rate feature; and while some trade is doubtless brought in through the advertising of cut prices, it is on the whole vastly unprofitable. The niggardly, penurious element of society is certainly attracted, and as certainly unsatisfied, for the disposition to "shop" leads to the hope of lower and lower quotations—unfortunately too often realized—while the demoralization and distress throughout the trade grow apace. The business qualities that have made the leading cut-rate druggists successful, we repeat, would have insured success with

regular prices. Cutting, of itself, never yet made a drug business successful, while its victims lie stranded wrecks from one end of the country to the other.

Prosecutions.

The chairman of the infringement committee of the Ontario College of Pharmacy, Mr. Karn, has instituted a crusade against violators of the Pharmacy Act. The duty which he is so energetically performing is a disagreeable one, and one which requires courage, confidence, and conscientiousness on the part of the plaintiff to enable him to do good work. Mr. Karn appears to possess these, and is apparently determined that all the power the Pharmacy Act possesses shall be utilized during the time he is supposed to administer it.

There is little doubt but that violations of the act are becoming more open and flagrant each year, and that some steps should be taken to call a halt.

If each prosecution would close up some business which should not be running actions under the act would be of real service, but when each prosecution demonstrates some new way of evading the law, and showing how weak the act is, then the wisdom of prosecuting is not so apparent. Within the past three years those who conduct any form of business under the Limited Liability Act have found that they are neither personally nor jointly liable to prosecution for keeping open shop for the sale of drugs and medicines, and for the compounding and dispensing of poisons. This feature of the act became conspicuous when an interpretation of the law was sought before Chief Justice Meredith and Judge Rose in the Simpson case, when they decided that had the company been incorporated when the case was entered the act would have been inoperative.

No worse feature of the act could have been openly exposed, as it plainly means that any five persons can apply for incorporation at a cost of less than one hundred dollars, and conduct a drug business if they choose. Owing to this weakness in the act the drug business in Ontario has become very unprofitable, and in the city of Toronto is almost valueless unless where medical support is strong.

It is very difficult for druggists who have the true interests of pharmacy at heart, and who are anxious to elevate the business to a higher plane, to cope with conditions of this kind. Many old drug-

Protonuclein..

Tablets. (100 3-grain Tablets in bottle) per doz. \$9.00
 " (1000 3-grain Tablets in bottle) . each 6.75
 Powder. (1 oz. bottles) per doz. 9.00
 " (8 oz. in bottle) each 5.50

REED & CARNRICK,
 30 Wellington St. East, TORONTO.

Duncan, Flockhart & Co.'s

Blaud Pill Capsules

Are soft and flexible Never become oxidized
 Never become hard Never vary in strength

These Capsules are put up in 1, 2, and 3-pill sizes, with or without Arsenic, and can be supplied in boxes of 25 or 100 (each). They are prepared by a unique and original process, which entirely overcomes the tendency to **hardening** which is so common in the **Blaud Pills**.

R. L. GIBSON,
 88 Wellington St. West,
TORONTO.



Put up 40 five-cent packages in display box, **\$1.35**

BILLING, CLAPP & CO.'S

Slippery Elm
 Lozenges

In 5-lb. glass front tins, or in boxes containing 40 five-cent packages. Price, **\$1.26**

Fels & Co's Toilet Soaps

Faultless Pepsin Chips and Fruit Chips.
 ROYAL REMEDY & EXTRACT CO.'S Tolu Sugar Plums, Sweet Wheat,
 After Dinner, and other gums

RESTUCCIA'S PURE OLIVE OIL, in one-gallon tins
 CHAPIREAU'S Cacheteuses and Cachets, etc.

CANADIAN SPECIALTY CO. 38 FRONT ST. East, **TORONTO.**

Elliot & Co.



MAKE SPECIAL MENTION
 FOR

...OCTOBER
 AS FOLLOWS:

Cream of Tartar Powdered, "E," guaranteed 95%.	Bailey's Rubber Bath Brush
Preston's Cough Lozenges	Bailey's Rubber Toilet Brush
Ammonia Carb., in jars	Bailey's Rubber Complexion Brush
(Gail) Borden's Evaporated Cream	Bailey's Rubber Shampoo Brush
Thermometers	Bailey's Rubber Glove Cleaner
German Quinine, B. & S. Brand	Mayflower Pocket Stoves
Merck's Beechwood Creosote	Wax Tapers
Mellin's Food—English	British Pharmacopoeia and Addenda
Mellin's Food—American	Squire's Companion

Liquorice, "E" Brand

4 oz. Sticks. 5 lb. Boxes.

Made for us and stamped with our trade mark in Italy. You will find its quality superior to any American product.

Crown Gelatine

10 cent size makes one quart.

75 cents per dozen.

Miller's Patent Seamless Tin Boxes....

Sizes from 1/2 oz. to 4 oz.

These are a wonderful improvement upon former styles and yet cost just the same. As far as we have been able to show them they have had a large sale, and several who were prejudiced against tin boxes have been "caught" by the neatness of these new boxes, of which a **rounded bottom** is the principal feature, and have adopted them.

Aluminium Combs—Fine, Pocket, Barbers', Gents', etc.	Jock Straps (for gymnasium use)
"Highland" Chest Protectors	Rimmel's Unscented Soap
Cubeb Cigarettes, R.B.	Cleaver's Unscented Soap
Graduate Brushes	Gibson's Candies
	Acetanilid

We desire to draw your special attention to the fact that we have very much improved the stock in our

"Universal" Fountain Syringes

while we have also materially reduced their cost. Our aim is not to get the cheapest article we can, but to supply as good a line as possible at reasonable figures. Specify "**UNIVERSAL**," and you will get a highly satisfactory article. The same applies to

"Universal" Hot Water Bottles
 AND

"Universal" Combination Syringe and Water Bottle.

ELLIOT & CO.

5 Front Street East,

TORONTO, ONT.

Many Druggists

find

Wall Paper

a profitable stock to carry.



Many Druggists

say that our goods are the MOST
SALABLE and PROFITABLE.



When ready to order write to us, and
we will arrange to send a salesman,
or samples by express.



M. STAUNTON & CO.

Manufacturers

944-950 Yonge St., Toronto.

"DUNRAVEN" 10c.

"F. & S." 5c.

These are both very
high-class Cigars.

Fraser & Stirton,

Send for Sample Order.

LONDON, Ont.

**"Mist" COUGH
LOZENGES**



SELL ON SIGHT
GOOD PROFIT..

10cts.

THE KEY MEDICINE COMPANY,

395 YONGE STREET, TORONTO.

The Use of STEARNS' WINE OF COD LIVER OIL

*Has Spread from the Detroit Hospitals
to the End of the Earth.*



Stearns' Wine of Cod Liver Oil

Is not a fatty food, but a metabolic stimulant.

Stearns' Wine of Cod Liver Oil

Improves the appetite and digestion, and by stimulating the cell activity of the tissues eliminates poisonous materials from the system and builds new tissues from good food.

All Authorities Admit

That the "alternative" virtues of Cod Liver Oil reside in the extractive, not in the fat. STEARNS' WINE OF COD LIVER OIL contains the extracts, not the fat.

The Fresh Liver of the Cod

Is the source of the extractive. It exists in the oil only to the extent that oil is a solvent for it. STEARNS' WINE OF COD LIVER OIL is prepared from carefully selected FRESH livers containing the oil, by a process of elimination by which the nauseous fatty matter is rejected and the active principles are retained.

Any Fat is as Good as Cod Liver Oil Fat.

If you want fat, use the fat of milk (butter) or of prime beef. They are fully as nutritious, and not so liable to interfere with the digestion. Take STEARNS' WINE OF COD LIVER OIL with it to assist their assimilation.

Beware of Using Fat in Wasting Diseases.

It inhibits the metabolism of the proteid molecule. Therefore, when used in large amounts, slows the process of tissue building, and causes the products of tissue decomposition resulting from the disease to accumulate in the body of the patient and poison the system.



SOLD BY ALL JOBBERS AT \$8.00 PER DOZEN, OR
MAY BE ORDERED DIRECT FROM THE
MANUFACTURERS.



Frederick Stearns & Co.

MANUFACTURING PHARMACISTS

DETROIT, Mich.
LONDON, Eng.
NEW YORK City.

WINDSOR, Ont.

gists who enjoyed an extensive patronage from customers who they were sure would stick to them under any circumstances have been surprised and chagrined to find that public fealty is a fickle thing, and that a few cents difference in price would cause its withdrawal. Scores of these same druggists have been obliged to sever their connection with a business which speedily threatened to bring them to poverty, and they are now plying avocations which impose no restrictions if they confer no privileges.

Our desire has always been in favor of the enforcement of the provisions of the Pharmacy Act, and we most heartily commend Mr. Karn for his courage in the performance of an unpleasant duty, but we trust that such prosecutions as he may see fit to institute will be against those who are neither graduates nor undergraduates of the Ontario College of Pharmacy, and who have apparently no thought of becoming either.

Deceptive Advertising.

The departmental stores are apparently not satisfied with alone seductively deceiving the general public, as they have recently had the ignorant effrontery to blare their trumpet of buffoonery in an attempt to influence members of the medical profession. The following is a copy of an advertisement published in Toronto papers during the past week. It carries on its face its character, and truly represents the degree of perverted honor which can be attained by a druggist who will demean himself by bartering his talents to aid in destroying the body which gave him professional birth.

Under the heading "No substitution here," they state: "When your physician writes his prescription for P. D. & Co.'s Phenacetine, for instance, we give you that precise make or we give you nothing." The remark suggests the idea that they are enabled to freely stock P. D. & Co.'s preparations, which is very wide of the truth, and also conveys the thought that P. D. & Co.'s Phenacetine is one of the articles they have in stock. The fact that there is no such preparation as P. D. & Co.'s Phenacetine stamps the advertisement as being ignorant or knavish. The retail druggists of the province may at times be hard enough up for general trade and medical support, yet at no time have they stooped to so ungenerous, undignified, and dishonorable a method of inviting trade, nor do we think they will ever

require to. Medical men whose patronage would be valuable are too well posted in the products manufactured by P. D. & Co. to be taken in by such statements, and we very much err in our judgment if they will not, in future, take due precautions to see that prescriptions of theirs from which they want "exact effect" shall not be dispensed by houses of this character. This is the advertisement alluded to:

NO SUBSTITUTION HERE!

There's one word we can say for our drug department which every doctor in Canada can appreciate. We never juggle with life and health for the sake of a few cents more profit. When your physician writes his prescription for P. D. & Co.'s Phenacetine, for instance, we give you that precise make or we give you nothing. He knows the exact effect he wants to get, and we're not going to defeat his purpose for any private gain.

So we write it down for chemists and doctors and all: "We give you just what's called for in every prescription, or we don't fill the prescription." Wonder how many druggists can say this and say it truthfully?

More than this—not in prescriptions alone, but in what are called patent medicines "we give you what you ask for," whether the profit to us is big or little, or whether we think we've something "just as good" of our own or not.

In sugar and starches, in shoes and ribbons, take something you don't want if you like, but when it's a matter of health, be particular enough to get precisely what you ask for.

When Will Prices Advance?

We are in receipt of a number of enquiries from druggists throughout the province asking when the promised edict is to be issued directing the advance to the regular prices on all patent medicines which have hitherto been sold at "cut-rate" figures. These enquiries have been principally from places in the vicinity of Toronto, Hamilton, and Brantford, where the slaughter of prices goes on quite as disastrously as before the formation of the Ontario Society of Retail Druggists. There is no doubt that many druggists in the smaller towns are suffering heavy loss from the way proprietary medicines are sold in the large centres, and it does seem that something should be done to remedy the existent state of affairs.

Not only are the city druggists allowed to sell at whatever price they wish, but, notably in the cases of Hamilton and Brantford, they *advertise* the cut-rate prices, a proceeding which should not be

tolerated. If the society is to be of any benefit to the trade it certainly must be on the line of regulating prices. This is one of the objects, and the principal one, given for its organization. If it fails in this it fails in its purpose, and might as well cease.

We believe it is only necessary to call the attention of the executive of the Ontario Society of Retail Druggists to this matter to secure its action, and we trust its decision will be issued ere long—a decision in keeping with the aim and object of the purpose for which it was brought into existence, and for which the druggists of this province have willingly contributed of their means.

An Optical Association.

As noted in our issue last month, a meeting was held in Toronto during the second week of the Industrial Exhibition for the purpose of forming an association of opticians for Canada. This is a step in the direction indicated in our columns recently, leading to the recognition of opticians as a distinct profession, and protecting the public from the danger of allowing people who are in ignorance of the principles of optics to fit glasses or to tamper with the eyesight in any way whatever. We cordially endorse the movement, and will be glad to see the aims of the association brought to a successful issue.

There is no doubt that the druggist is more capable of doing this work thoroughly and efficiently than perhaps any other class of men outside the physician. His higher education, and his partial knowledge of anatomy and therapeutics, all tend to point him out as admirably adapted for the work, and to those druggists who have not taken a course of instruction in this work we would suggest its consideration as an accessory in business and an instructive and pleasing study.

The time will certainly come when the optician will be recognized in the same way as the physician or dentist, and the same safeguards will be placed around his calling.

The association, as will be seen by the report given elsewhere, is now organized, and those desiring to become members should write the secretary. Already a nice membership has been secured and the prospects are good for a strong society.

Thymol camphor is obtained by heating together equal parts of thymol and camphor.

Park vs. N.W.D.A.

This suit, instituted by The John D. Park & Sons Co., of Cincinnati, against the National Wholesale Druggists' Association of the United States, has reached another stage. The plaintiffs having applied for an injunction to restrain the defendants from combining to prevent the supply of goods to the plaintiffs, the case came up before Judge Russell in the Supreme Court of New York State.

In his judgment, given Sept. 8th, the Judge held that it was not lawful to conspire or enter into a combination against the plaintiff which would prevent him from obtaining goods, but he refused to grant an injunction preventing the defendants from obtaining information as to the means pursued to obtain goods, or whether the manufacturer or wholesale dealer violated any agreement in the supply of goods to the firm.

As a trial of the case is still to be held, a final judgment on the case was not given, but as far as proceeded with the decision is certainly a victory for the association. In giving his decision the Judge said:

The Druggists' Association, defendant, is formed by the co-operation of a large number of wholesale druggists and manufacturers of proprietary medicines for mutual benefit and protection. Unquestionably, a part of its aim is to enable those within its scope to obtain prices which shall yield fair profits, and, in so doing, it acts under rules understood by the association, as well as those expressed. A large part of its line of action, as evidenced by its formal articles of agreement, is unquestionably lawful, as is also a great part of the individual action of the firms entering into the combined association. As an association, it is lawful for the association and the manufacturers to provide means for obtaining information as to the acts of firms violating any proper agreement in regard to the sale of proprietary drugs by any of the associates, or the customers of such associates. It is also lawful for the manufacturers individually to agree with their customers that those customers shall sell the particular goods manufactured by the vendor for a certain price, so far at least as not to render the manufacturer liable to third parties for doing an unlawful act, however much doubt there may be as to such manufacturers being able to enforce an executory agreement of this kind by proper legal proceedings. It is lawful, also, for each manufacturer to refuse to sell any customer, for any reason, however capricious, any goods manufactured by him.

But it is in restraint of trade and unlawful for such manufacturer to become a party to a combination which shall prevent any of his customers from obtaining other goods of other manufacturers, because those customers violate the agreement with him in respect to a cutting of prices, and to make such violation a

cause of a general exclusion of such customers from the power to purchase any kind of proprietary medicines from any of the other members of the association. It is not lawful to form a combination which shall make general the enforcement of prices fixed by the manufacturer effective beyond the reach of competition, by the exclusion of such customers from a general power of purchase of other goods.

In the present case, I am not ready to find, from the mass of documentary and other evidence furnished me, that all of the defendants, by means of the Druggists' Association, have combined themselves to carry out such an unlawful purpose; but there is in the affidavits and papers presented sufficient to justify the belief that some of the defendants, acting through the organization of the association, or under its policy, as summed by them, have gone beyond the limit which the association was justified in acting up to, and have used the power of the association to punish or exclude the plaintiff from its power to purchase. The evidence in this respect is not entirely satisfactory, and the more perfect method of a trial upon the issues presented might entirely dissipate any such impression.

O.C.P. Notes.

The Ontario College of Pharmacy opened Friday, September 11, with an attendance of 110 students. The dean and staff were introduced by Mr. C. D. Daniels, chairman of the Board of Education. The '96 class organized their association on Wednesday with much enthusiasm, and the students seem determined to make this class head all others. The officers for the following term are: Prof. Heebner, hon. president; Prof. Scott, hon. vice-president; Mr. C. E. Reid, president; Mr. Griffith, vice-president; Mr. Hawkins, treasurer; Mr. C. W. Field, secretary. Executive committee—Messrs. H. G. Craig, E. D. Huxtable, A. Edward, B. B. Scarf, and the officers.

Harold Carnahan, of Meaford, Ont., of the class of '96, is now manager of a drug store at 574 Second avenue, New York city.

J. C. Grosch, of Milverton, Ont., class '96, is manager of a drug store at fifty-fourth street and Sixth avenue, New York city.

F. W. McClung, of Bowmanville, Ont., class '96, is also manager of a store in New York city.

Lyman Bros. & Co.'s Chemical Works Gutted.

A serious fire broke out a few minutes before midnight, October 5th, in the buildings of the Toronto Chemical Works and Drug Mills, 179 and 181 Front street east, owned by the Lyman Bros. & Co. (Ltd.). The buildings form a long two-storey, red brick block, running east and

west, with extensions running south towards the Esplanade. They stand back 100 feet or so from Front street, and are approached by a driveway, which passes under an archway to the rear. This archway is closed at both ends by heavy wooden gates, and it was in the space thus formed that the fire appeared to start, as, when the brigade arrived, the gates and heavy wooden partitions lining the entry were blazing fiercely. The flames rapidly worked their way up a wooden stairway in the south-east corner into the upper storey, and from that point very swiftly ran in every direction, the building being very old and dry, and sheeted extensively with wood. In fact, so quickly did the flames spread that it almost appeared as if the fire had had two or three different starting points, but this is improbable.

For upwards of an hour the brigade worked energetically before the flames could be considered under control, and when they were able to make a thorough inspection of the premises, it was at once apparent that the buildings were pretty badly gutted. Mr. John Henderson, a partner of the firm, and the general manager arrived early on the scene, and, after going over the place, stated that the actual loss from the fire would run about \$6,000, but the loss from disturbance of business at this busy season was the most serious item. The loss he divided as follows: On buildings, \$1,000; stock, \$2,000; machinery, \$3,000. The insurance would cover this, but exact details he could not give off-hand. The companies interested were, he thought, the Aetna and the Western Gore District Mutual.

The cause of the fire is problematical, but appearances pointed strongly to incendiarism, and this is supported by the fact that a shed in rear of the factory was fired about a month ago. There was nothing in the vicinity of the outbreak which could be credited with the cause.

According to Lovell's directory, just published, Montreal has 440 physicians and surgeons, 115 retail druggists, 65 dentists, 35 veterinary surgeons, 12 oculists and aurists.

To preserve solutions of eserine add one minim of sulphurous acid to each two ounces.

Citrophen is a patented combination of citric acid and phenetidin, introduced by Roos. It appears as a white powder, or in small crystals, with an acid taste, which persists some time after its use. It is said to be cooling and refreshing, and to be pleasant to take. It is soluble in 50 parts of cold water and 40 parts of hot, which fact gives it a great advantage over phenacetin (soluble in 1,200 parts of water), and lactophenin (soluble in 340 parts of water). It is an antipyretic and antineuralgic, and is given to the extent of 6 gm. (90 grains) daily.

OUR PRESENT SEASON'S PURCHASES OF

Staple DrugsFine ChemicalsHeavy ChemicalsFrench and English PerfumeryHair and Tooth BrushesDruggists' Sundries, Sponges, etc.

HAVE been unusually heavy, and we shall be in a particularly good position to supply our retail druggist friends with all requisites. We solicit a continuance of the liberal patronage so kindly bestowed on us in the past.

Archdale Wilson & Co. Wholesale Druggists Hamilton



WE beg to announce that our special line of Stationery for Fall and Christmas Trade is now ready for inspection.

Fine Stationery suitable for the season is our specialty, and our stock will be found up-to-date in every particular.

Our Boxed Papers and Papeteries are, as usual, the best value in the market.

We carry a large and choice selection of Playing Cards by leading makers at home and abroad.

Close and prompt attention given to mail orders.

WARWICK BROS. & RUTTER,

Importing and Manufacturing Wholesale Stationers,
TORONTO, ONT.

Trade Notes.

G. A. Small, druggist, Erin, Ont., has made an assignment.

Geo. E. Frost, druggist, St. John, N.B., has moved to Hampton, N.B.

A. F. Herring, of Westminster, has opened a drug store at Rossland, B.C.

The drug store of J. Harrison, Gananoque, Ont., was destroyed by fire October 2nd.

Frank Dowling, formerly with W. J. Malley, of Deseronto, has opened a drug store at Sydenham, Ont.

Skoda Discovery Co., Ltd., Wolfville, N.S., manufacturers of patent medicines, building advertised for sale.

O. G. Palen has purchased the branch drug store of Garland & Rutherford, on Hunter street, Hamilton, Ont.

F. Holman is opening a new drug store on Hamilton road, in the vicinity of the new car works in London, Ont.

A. S. Goodeve, of Chesley, Ont., is opening a drug business in Rossland, B.C. He will still continue his business in Chesley.

We are glad to learn that the fire of the 4th inst. in Lyman Brother & Co.'s drug mills will not interfere with their general business, but all orders will be promptly attended to as usual.

W. Bleasdale, of Macleod, Alberta, has moved to Fort Steele, B.C., where he has opened a new drug store. He was presented with an address and purse by the citizens of Macleod before leaving.

Manitoba Notes.

Mr. James R. Wynne, vice-president of the Martin, Bale & Wynne Co., returned to Winnipeg last week, after spending six weeks in Eastern Canada, New York, and Boston. Mrs. Wynne accompanied him.

W. H. Booth, druggist, Bremond, contemplates moving his business to Crystal City.

The Bremond district suffered a severe hailstorm, which did wholesale damage to crops.

Mr. J. W. Higginbotham, Virden, returned last week from his native town, Bowmanville, Ont., having been suddenly called to accompany the remains of his brother, Mr. Fred Higginbotham, who met with a fatal accident in Winnipeg while enjoying an afternoon's outing with some friends. Mr. Higginbotham has the sincere sympathy of a large circle of friends in this sad bereavement.

Mr. A. H. French, representing the well-known patent medicine firm, the J. C. Ayer Company, of Lowell, Mass., is touring Manitoba in the interests of his company. Mr. French is an old and trusted representative of the J. C. Ayer Co., and through his many visits to Mani-

toba has made a host of friends, who are always glad to see him.

F. E. Arkell, formerly of Wawanesa, and for the last two months managing the Waldon estate drug store at Calgary, returned to Winnipeg a few days ago.

W. R. Inman, proprietor of the Central Drug Store, Winnipeg, has been making a tour of the provincial towns in the interests of his optical business.

Mr. Alf. Hill, druggist, Griswold, spent a few days in Winnipeg last week on business.

Mr. J. A. Hobbs, the popular Morden druggist, in company with some friends, attempted a bicycle trip to Winnipeg, but after riding as far as Rosenfeldt decided to board the north-bound express. After spending a few days in the city they returned by rail as far as Rosenfeldt, where they again mounted their wheels, continuing their journey home.

Mr. A. E. Waldon, for some years in the drug business at Calgary, is now representing eastern houses in chewing gum and confectionery, making his headquarters at Winnipeg.

In November Issue.

The course of articles on "The Science of Optics," which has been omitted for a couple of months, will be resumed in our next issue.

The Lyman Brothers & Co. Employees' Second Annual Bicycle Road Races.

A year ago the employees of the Lyman Bros. & Co. Ltd. inaugurated annual road races, which were held on the Kingston road and proved a creditable success. This year, through the courtesy of the directors of the Toronto Athletic Association, the beautiful grounds and track at Rosedale were placed at their service, together with the club-house and accessories, and on Saturday last, Oct. 3rd, the second annual races were held and proved a very exciting and enjoyable event. A large number of ladies were present, occupying seats on the club-house balcony, from which position they were afforded a splendid view of the races from start to finish and enthusiastically applauded the different contests.

The first race was a half-mile for the messenger boys, there being four entries. The first prize, an alarm clock, was won by M. Schofield; second, hand mirror, by Willie Jones.

In the one mile race there were five entries, the first prize, a silver nut bowl, being won by Wm. Shirriff; second, silver mounted ebony cane, won by Wm. Milsap.

For the ten mile handicap there were about fifteen starters, and the first prize, a gold locket, presented by the firm, was won by Sam. Francis (3 m.); second, or time prize, a silver cup, presented by Geo. H. Leslie, won by Wm. Shirriff (sc.); third, a chime clock, Geo. Evans (sc.);

fourth, one dozen photos, Wm. Milsap (sc.). The Booby prize was won by Frank Alexander. This was a very exciting and interesting race from start to finish, and the winner was warmly applauded at the close.

For the slow race there were about ten entries, the prize, a cyclometer, being won by Wm. Milsap.

At the close of the races the party adjourned to the spacious parlors of the club-house and were served with refreshments, kindly furnished by the firm, Mrs. Lillie gracefully presiding and dispensing tea, etc. The prizes were presented to the various winners through the hands of Mrs. Lillie, who briefly congratulated each. A few remarks of a complimentary character were also made by Messrs. Henderson, Leslie, Hay and Watt, of the firm.

Polypharmacy with a Vengeance!

A prescription was recently presented at Perry's pharmacy in Indianapolis, signed by a "regular practitioner" of Eagletown, Ind., calling for 2 drachms each of the following fluid extracts: Cascara, columbo, avena sativa, poplar bark, balmony, bayberry, barberry, black cohosh, trillium pendulum, blue cohosh, sanguinaria canad., lappa officinalis, ladies slipper, glycyrrhiza glabra, xanthoxylon, simp'ocarpus, foetida, juglans cinerea, apocynum andros., primos scrotina, leptandra, and taraxacum. As a "ginner's" pupposes" remedy, its author claims it has no "livin' ekil," and we are ready to agree with him. Perry ought to frame the original. — *National Druggist*.

Dispensing Diuretin.

We desire to caution druggists against using steel knives in dispensing diuretin. The chemical name of diuretin is sodium theobromine salicylate, and by using a steel knife, especially if there is the slightest moisture about, a reaction occurs between the iron and salicylic acid, resulting in the formation of the usual purple coloration. Bottles of diuretin have been returned to us with the contents of a deep purple color due to the above cause, and we cannot be responsible for loss due to careless pharmacy on the part of the retailer.

It is interesting to note that, barring the color, the contents of the returned bottles were in perfect condition. — *Drug Topics*.

The addition of a small quantity of alcohol to a "cracked" emulsion is said to immediately restore it to perfect condition.

Dilute acetic acid is recommended for disguising the taste of potassium bromide, and spirit of lemon for that of sodium sacilylate.

Pharmacy in England.

Novelties at the Chemists' Exhibition—Peptonized Cocoa—Trade with the Colonies—Chemists Prescribing.

(From Our Own Correspondent.)

The actual novelties—that is, new inventions and fresh ideas—were rather limited in number at the Chemists' Exhibition; yet there were some features of interest. The ball-nozzle patent for enema douches, etc., is a remarkable improvement on the older arrangement, the stream of water issuing in spherical form. Extract of malt, combined in emulsion form with new milk, produces an ideal cream of malt, both pleasant and palatable. This was exhibited by the Britannia Malt Extract Company. The Salt Union is a big affair, but it has entered the market as proprietary manufacturers. It has a perfumed bath salt, a soap suitable for lathering well with even salt water, a saline table water duly aerated, and a disinfectant salt. Perfumes in bottles of strange device were liberally displayed. It seems almost essential nowadays, thanks to the Crown Perfumery Company no doubt, that glass stoppers shall be decorated with a mitre, feathers, crowns, and the like. Compressed floral tablets are supposed to be an improvement on the old cachous, the dried flowers, in some instances, being compressed, with sugar and other ingredients, into convenient-sized tablets. Dandelion coffee was exhibited by Messrs. Potter & Clarke, the novelty being that the powder was all dandelion and no coffee; but by an ingenious system of roasting a pleasant, aromatic aroma is obtained, and the beverage produced is stated to be healthful and not unpleasant. Perforated court plaster is a German invention. The ordinary court plaster is perforated in such a manner that a piece of the desired size can be easily torn off—a great advantage when scissors are not handy. It seems rather too bad on DuMaurier's heroine, "Trilby," that her name should be given to a corn plaster! Those who import or export sulphuric acid may be interested to learn that the patent stamped steel barrels of the Iron & Steel Plant Company are being extensively used for this purpose. They hardly suffer from the contact, and are extremely useful packages afterwards.

The latest tooth-brush has a channel down the centre of the brush, so that liquid dentifrice poured on may not be spilled. Aluminium puff-boxes are both elegant and light. These and many other attractive lines were shown by Messrs. Maw, Son & Thompson. Oxine is the appropriate name given to a new extract of meat jelly, soup, and lozenges. Several American machines were exhibited, including the Keystone, the Little Diamond, and Mulford's tablet machines, the Pearl suppository machine, triturate moulds, etc.

I have frequently drawn attention, in these columns, to the advantage of peptonized foods in the dietary treatment of the sick. Most chemists could easily

prepare one or more of these articles, such as peptonized beef, peptonizing powders or tablets, peptone wine, etc. Now, an enterprising Dutchman has just sent me a circular announcing the fact that he has patented a peptonized Dutch cocoa powder. Quite gratuitously he also asserts that he does not intend doing business with grocers, and he encloses a specimen label, which, like Joseph's coat, rejoices in many colors. There is something suggestive in the statement that "the ingredients for this peptonized cocoa are so minimum that it is very difficult to taste or detect any difference between ordinary cocoa and this." But the price shows a marked difference, any way. He wants all chemists to undertake not to sell under ninety-six cents per pound, and the terms are twenty per cent. discount! I have not yet had an opportunity of looking at Mr. W. P. Van Wyk's patent for this cocoa, but I know something about the effect of trying to actually peptonize the cocoa itself, and the result is so unsatisfactory that I should not at all be surprised to find that the inventor has merely mixed pancreatine with the cocoa, or some starchy matter has been pancreatized. His directions for the preparation of the beverage are not exactly the most suitable, one would think. *Boiling* water is to be added to the cocoa, and the cup filled up with hot milk. And yet, in special type, and prefaced with the word "caution," we are enjoined, "on no account must this preparation be boiled."

When Mr. Chamberlain started a vigorous policy at the Colonial Office, we were all struck with the practical step he had taken to obtain evidence of the extent to which British trade in the colonies is being supplanted. He was not merely contented with reports of the usual consular variety, but he made arrangements for samples of the cheaper goods to be sent to England as object lessons for our manufacturers. So far the drug trade has learnt nothing of special value, but it is interesting to find that Germany clothes the coolies of Trinidad in so-called mole-skin trousers at forty-two cents per pair; that shirts on the open-Venetian-blind-principle are supplied from the same source at \$2 per dozen. Boots, unworthy of the name, at ridiculous prices, have also come back as evidence of how the Germans are cutting the trade. Of course, it may be argued that if there is a demand for this sort of stuff our manufacturers should secure the orders, as they undoubtedly could, instead of standing on their dignity and declining to offer anything so common. But one cannot help feeling sympathy with the man who declines to sully a reputation for good stuff by producing articles that are no credit to buyer or seller. That the Germans are improving their quality goes without saying, but the legend "made in Germany" will stick to their goods for many years as a sign of the frequently cheap and inferior class.

The author of a paper on "Chemists' Prescribing" at the annual meeting of the

British Medical Association read a long extract from the address of the present president of the Pharmaceutical Society. Unfortunately, by a slip, he attributed the address to Mr. Carteighe, and the *British Medical Journal* and the *Chemist and Druggist* perpetuated the blunder, in spite of the fact that the *British and Colonial Druggist* pointed it out at the time. Mr. Walter Hills made some excellent remarks on the subject, but they were obviously of the nature of a pious opinion. He said the Pharmaceutical Society, by which he meant the Council, would always set its face against all intrenchments on forms of practice which properly belong to the medical profession. Dr. Bateman, the author in question, immediately jumped to the absurd conclusion that the Council would visit its wrath in some undefined manner upon the unfortunate druggist who ventured to recommend a purge or suggest a draught. Needless to say, the official organ of the society has promptly poured cold water on this idea, and the *British and Colonial Druggist* has openly flouted Dr. Bateman for his uncharitable suggestions and one-sided policy. Whenever this perennial subject for discussion arises in the medical journals a doctor champions the chemists' cause. On the present occasion an Irish medico says that he considers the druggist is far often sinned against by the doctor, and that matters will never be satisfactorily settled until the medical man resigns work for which he is not fitted. It is this dispensing by doctors that forms the whole crux of the question, and nothing but an Act of Parliament could put the matter straight.

Celluloid is being largely used in place of metal and card-board. Glass jars are now fitted up with celluloid lids instead of the tarnishable nickel caps, and as the celluloid is supplied in various colors, it is more attractive. Under the name of ivorine the same stuff is used as soap boxes and cases for shaving soap sticks. It has also become quite popular of late as a cover for the gear case of bicycles, as it enables one to see if the chain is running properly. It is not very suitable, however, for hot and damp climates, as it has a tendency to cockle up, whilst the important point about its exceeding inflammability should never be forgotten.

Shall Pharmacists Control the Drug Trade?

Under this head *Meyers Brothers Druggist* says: The State of Wisconsin has a law which restricts the sale of all medicines to registered pharmacists. This is hard on the department stores and cruel to those manufacturers who so stoutly announce that they will sell to whom they please. But it gives the legitimate druggist control of the goods that he has been educated to handle in a cautious and safe manner.

Pill and Powder BOXES

We are the headquarters in Canada for every line of Druggists' Boxes, Labelled or Unlabelled.

Paper Boxes

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Our Impervious Paper Boxes are the best on the market.

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Have You

Somerville's Pepsin Gum ?

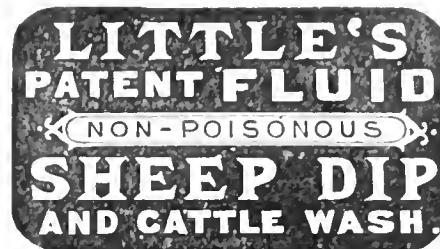
It is the Gum the others are selling.

It is admitted to be the best Pepsin Gum made in Canada.

Our Carving Set Premium Packages are having a great sale.

C. R. SOMERVILLE

LONDON, ONT.



For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

£17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at \$1.00. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.



CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and \$1.00 Tins.

A 25c. bottle will make four gallons stronger Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

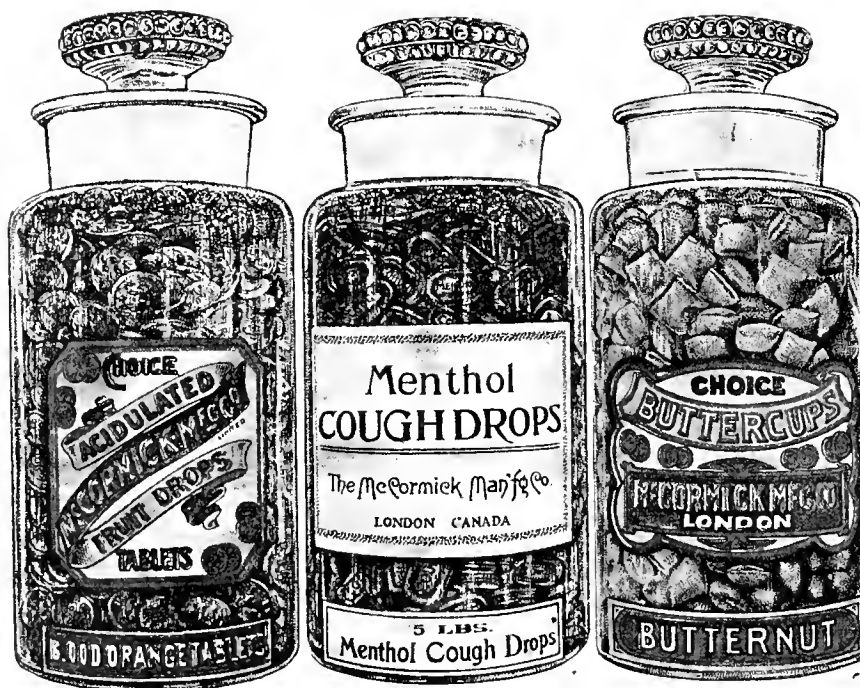
To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton, and London, Ont., and Winnipeg, Man.

The McCORMICK MANUFACTURING COMPANY, Limited

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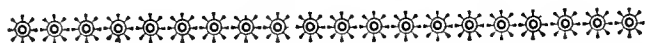
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*The Greatest Remedy Known for
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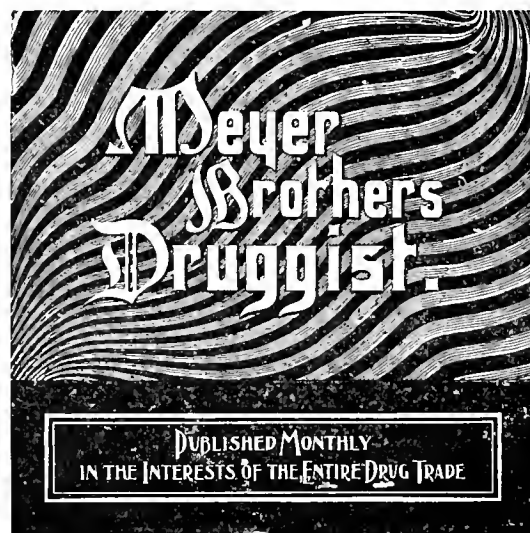
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MONEY For Canadian Druggists!



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— ADDRESS —

MEYER BROTHERS DRUGGIST,

425 CLARK AVENUE.

ST. LOUIS, MO., U. S. A.

Attend the A. Ph. A. Convention at Montreal, August 12.

Correspondence.

The Editor does not hold himself responsible for the opinions of correspondents.

Correspondents must in all cases send name and address, not necessarily for publication.

Is This an Infraction?

Editor CANADIAN DRUGGIST:

SIR,—The writer has just been shown a circular letter sent out by a prominent retail druggist of Ontario, offering special inducements to any one who will order one hundred ounces of quinine from him. I have said special inducements, but perhaps I am wrong, as quinine is to-day being sold as cheaply in small quantities as he offers it in one hundred ounce purchases. But the reason I write is that I believe this endeavor of a retail dealer to take away the trade which legitimately belongs to the jobber is, *in spirit at least*, an infraction of the agreement entered into between the Retail and Wholesale Associations.

As wholesalers we endeavor to protect the retailers, even in many cases to a financial loss to ourselves by doing so; and we ask the retailer to reciprocate this action by working on the lines of a retailer.

Yours truly,
JOBBER.

Does it Pay to Handle Patent Medicines?

Editor CANADIAN DRUGGIST:

SIR,—It is generally supposed that the patent medicine trade is the main support of the country druggist, and that if the trade in nostrums were interfered with, or the profits curtailed in any way, he would inevitably go to the wall. As an average representative of that class, some hard thinking on the subject, backed by facts, has gone far to convince me that such is not the case, and that in the long run the profession would be much better without the traffic (my reasons for saying which, I fear, would make this letter too long, so will defer them until possibly another time). As to the facts. At the beginning of September I had the curiosity to take stock of my patents, which I found, including those purchased during the month, amounted to \$320. Of these the cash and credit sales for that time totalled \$54.50, the profit being \$16.50 exactly on the month's sale of patents.

September, I may say, is an average month with me. When we take into consideration the amount constantly tending to become "dead stock" of the deadest kind, the amount invested, the space occupied, the constant supervision necessary in order not to get "stuck," if the experience of others is similar to mine, etc., such a profit will be considered indispensable to the welfare of the druggist. I may add that the stock is well assorted,

consisting of 168 varieties, and with very little "dead stock." I should like to hear from some of my confreres in regard to their experience in the same line.

Yours very truly,
COUNTRY DRUGGIST.

The Successful Plan of the O.S.R.D.

Editor CANADIAN DRUGGIST:

SIR, It is true that we have not succeeded in entirely stopping the cutting of prices, but we will. Much good has been done. If it had not been for the restraining influence of the society, there is no doubt but that the cutting of prices would have been more prevalent to-day than it is. With the experience gained during the past year, it seems to me that the manufacturers possess the key of the situation. The wholesale druggists and jobbers have assisted us to the utmost of their ability. It is not the cutting of prices of drugs that trouble us; it is the cutting of prices of patent medicines. The manufacturers make the patent medicines, and I believe that if they will act in a united and uniform manner they can control the prices at which their goods shall be sold. But too much must not be asked from the manufacturer unless every retail druggist will promise and agree (and then live up to his agreement) not to substitute in the sale of any patent medicine that is asked for. If we could arouse the interest of the manufacturers to this extent, that they would form an active and energetic association, and with the assistance of the wholesale and retail druggist, I believe that our object could be attained. Let the manufacturer not sell to the retailer, be he druggist or grocer, but only to the wholesale druggist, and let the wholesale druggists be the sole distributors of all patent medicines to the retail trade, both druggists and grocers.

A MEMBER.

Pharmaceutical Examination.

The Preliminary Board of Examiners of the Pharmaceutical Association of the Province of Quebec held their quarterly examinations in Montreal and Quebec on Thursday, October 1st, when twenty-four candidates presented themselves in Montreal and one in Quebec, and of these the following, named in order of merit, passed, namely: E. R. Paterson, Joseph Valois, E. Belisle, A. Laviolette, Edmond Dion, Miss Jessie E. Hill, G. Faulkner, Miss A. A. Prevost. Roger Pasquin passed upon all subjects but English, for which subject he will require to present himself at the January, 1897, examination. The remainder of the candidates were referred back for further study. The examiners were the Rev. Abbe Verreault, of the Jacques Normal School, and Prof. Isaac Gammell, of the High School, Montreal. The next examination will be held on the 7th of January, 1897.

Catering to the Wants of Cyclists.

If some ingenious pharmacist turned his attention to the pouch containing the repair outfit and tools he could suggest several additions which would increase the usefulness of its contents. A few inches of stout copper wire, with a French nail, would come in very handy in case of a broken chain. Then, for a lubricating oil, nothing equals heavy petrolatum oil; indeed, most of the proprietary oils on the market are nothing else. Some cyclists prefer vaseline as a chain lubricant. An oil that would answer equally well for illuminating and lubricating would make a good line.

There is room for a cyclists' portable concentrated food. I can find nothing on the market yet which comes up to my ideal. Meat lozenges are too salt, and meat biscuits are far from palatable additions to one's diet. Thirst assuagers, such as effervescent tablets or lozenges, are decidedly useful to tourists in hot weather. Druggists who sell quill picks should not forget that a toothpick, carried between the lips, is one of the most popular means of keeping the mouth cool.

Most cyclists wear, or should wear, a suspensory bandage; the kinds with understraps are not suitable.

There are many minor ailments which a cyclist, if he knew his druggist had a fellow-feeling in the matter, would more readily seek advice for. The saddle-soreness which some are troubled with is best relieved by bathing with a lead lotion; where the skin is broken, a dusting powder, such as compound stearate of zinc with boric acid, suitably perfumed, should be recommended. As an athlete's liniment for rubbing the muscles to take out stiffness and give suppleness, acetated turpentine liniment, with or without the addition of a little ether, is useful. If required in the form of an ointment, a mixture of lanolin and vaseline, suitably perfumed, is all that can be desired.

As a cyclist's tonic, quinine and iron, or, better, this tonic elixir, can be recommended:

Tinct. cinchon.....	2½ oz.
Tinct. nuc. vom.....	640 m.
Spt. aurant. co., U.S.P.....	1 dr.
Ac. hydrochlor. dil.....	1½ dr.
Syrup.....	6 oz.
Aque.....	q.s.ad. 16 oz.

Let stand twelve hours, and filter through kaolin.

Dose: One or two teaspoonfuls in water three times a day.

For exceptional occasions the addition of ½ grain of cocaine hydrochlorate to each dram may be made, but such addition should not be used for many doses together.

I think I have said enough to show that to some druggists at least here is a field at present waiting for the necessary enterprise to develop it.

In the above connection the following in reference to minor injuries and their treatment may be useful information. The soft, delicate structures of the body

are liable to injuries as the result of blows or falls. Bruises and sprains are of almost daily occurrence. Although trivial, as far as health is concerned, they give rise to considerable discomfort and pain. A severe blow or wrench creates resentment on the part of the tissues. They are not intended for that purpose. They swell up, and blood is effused into the parts if the blow is hard. Bruises are mostly the outcome of violence applied direct. Sprains are generally caused by an indirect wrench of some muscle or sinew, which causes the parts surrounding it to be swelled and painful, and to impair movements. A bad sprain is often worse than a fracture, and more persistent.

Rest of the part affected by a sprain is indispensable. Hot applications are always better and safer than cold ones, with some few exceptions; they promote absorption and relieve pain, and they do it more pleasantly than any other applications. The chief use for cold lotions is to reduce the swelling quickly when the bruises or sprains are on exposed parts, such as the face. Cold water, ice, raw steak, or a cold evaporating lotion, made with ammonium chloride, liq. ammonii acetatis, arnica, hamamelis, acetic acid, or liq. plumbi, well diluted and combined with a certain quantity of rectified spirit, are all in common use. After the second or third day, when all bleeding into the parts has stopped, recourse should then be had to hot applications to promote absorption of the blood-salts creating discolorization of the skin. Stimulating applications are usually of great benefit in the later stages of minor injuries. Soap liniment and tincture of opium with friction seldom fail to do good.

To impart tone to the injured tissues and restore them to their natural state, vigorous rubbing and douching with cold or sea water are generally resorted to. Pressure by means of flannel or elastic bandages is equally helpful.—*Chemist and Druggist*.

How to Increase Business.

By PROF. GORDON L. CURRY, Ph.G.

"How shall a pharmacist increase his business?" Now let me ask, do you advertise your business? I do not mean by flaring newspaper headlines or multicolored handbills, but by having the reputation of carrying a complete stock of clean, fresh, and pure drugs—and the same description should apply to your store and business as well as to the drugs. I know a brother pharmacist who has the night-watchman constantly on the lookout for every new family that moves into his neighborhood, and before that family is more than settled a neat circular is found in the morning's mail calling attention to the fact that pure spices, baking powder, etc., can be obtained at reasonable prices from Mr. So-and-so. Moreover, the gentleman in mind does keep things pure,

and consequent satisfaction on the part of the customer and a pecuniary satisfaction on the part of Mr. So-and-so is the sequel.

There is another thing I had in mind that would be of material advantage to the average pharmacist, and that is—microscopy. The intimate relation of the microscope to scientific pharmacy is now so marked that every college of pharmacy has definite microscopical work allotted to its students which they must satisfactorily complete before graduation.

By its assistance you can determine if drugs sold to you as pure are really so; and, again, by a knowledge of urinalysis you can assist the physician—what this latter means I need not tell you; you already know. If you have never worked with a microscope or are not possessed of one, as the first step I would suggest the purchase of an instrument from any one of the representative firms, and as many accessories as circumstances require. For nearly all purposes $\frac{1}{2}$ inch, $\frac{1}{4}$ inch dry, $\frac{1}{2}$ inch oil immersion, are all the objectives necessary. Staining agents, etc., can be secured as needed. Then get copies of Peyer's "Urinary Atlas," Jach's "Clinical Diagnosis," or Robert's "Diseases of the Genito-Urinary Organs," and study them conscientiously. Above all, don't jump at a conclusion. Be absolutely sure of your results before you venture an opinion. If possible, take a microscope course under some able instructor, and you will soon be convinced that the end justifies the means. In a town of only moderate size a microscope should bring to its owner, when employed in this way, at least \$200 a year, of which, after the first cost of equipment has been deducted, \$175 or more should represent cash profit.

It is not the province of this paper to deal with methods or detail of work which may be done in this line, but the field is wide, and if thoroughly worked cannot but be profitable to the progressive pharmacist.

The time is past when any but an educated pharmacist can hope to attain success in his chosen profession, and an explanation of that term "educated" may not be amiss.

To be an educated pharmacist, one should be as familiar with the material he handles as he is with his alphabet. He should know the source of supply, method of collection, preparation, purification, and tests for identity, as thoroughly as he knows that there are one hundred cents to the dollar; and, moreover, he should refresh his memory by constantly applying his tests where absolute purity is essential. It is the frequent practice of young graduates to lay aside all books and study as soon as they receive their diplomas—a grave error. They have only been taught how to study systematically, and unless that research is continued, much of the advantage gained in a short time lost. The course required in a college of pharmacy is intended to initiate

the aspiring pharmacist in the technique and details of manipulation in practical pharmacy and chemistry, in personal familiarity with the substances embraced in materia medica, in the essentials of botany, in the use and application of the microscope—and in this should be included practical chemical analysis, both qualitative and quantitative. Thus, when a young man leaves college he knows how to work. Whether he works or not is his own responsibility, but to be successful it is necessary that he shall work and study with unremitting enthusiasm and with a fixed desire to attain truth and accuracy.

After all, success rests with the individual.—*Bulletin of Pharmacy*.

Optical Instruction.

By reference to the advertisement of the Optical Institute of Canada on page 232A of this issue, it will be seen that the last class of instruction in optics for this year will begin on Nov. 2nd. As the season is now approaching when the largest business is done in optical goods, those who wish to participate in this year's business should take this course. The instruction is given by Dr. W. E. Hamill, who is so well known as a capable teacher and thoroughly posted in optics.

Rubber goods will be higher this year than last, raw rubber having advanced from 72 to 86 cents per pound. A well-informed writer thinks this is due to the growth of the rubber tire industry, doubtless, more than to anything else. Whatever the cause, the supply of crude rubber is short, notwithstanding more was imported than in any year preceding. It is not apparent that next year's crop will be much larger than this year's, while the demand will increase rather than decrease. This indicates that rubber prices next season will be higher, if they are not advanced before then.

Alantolacton is a synonym for helenin, suggested by Bredt and Posth (in *Liebig's Annalen*), in order to prevent confounding the bitter principle, helenin, with inulin, which is also frequently called by that name. This body possesses the formula $C_{12}H_{20}O_2$, and is neutral in its reactions. It is insoluble in cold alkalies, but becomes soluble on heating the latter, passing over as it does so into alantolic acid. This oxyacid on being heated to its melting point passes back into alantolacton.

An exchange says: "A trade paper is a window through which the merchant looks out upon the world of business, of style, of price, and of methods of doing business. Without a trade paper a merchant is shut up in a small space, wherein he sees naught but his own errors, and knows naught but what the travelling man sees fit to tell him."

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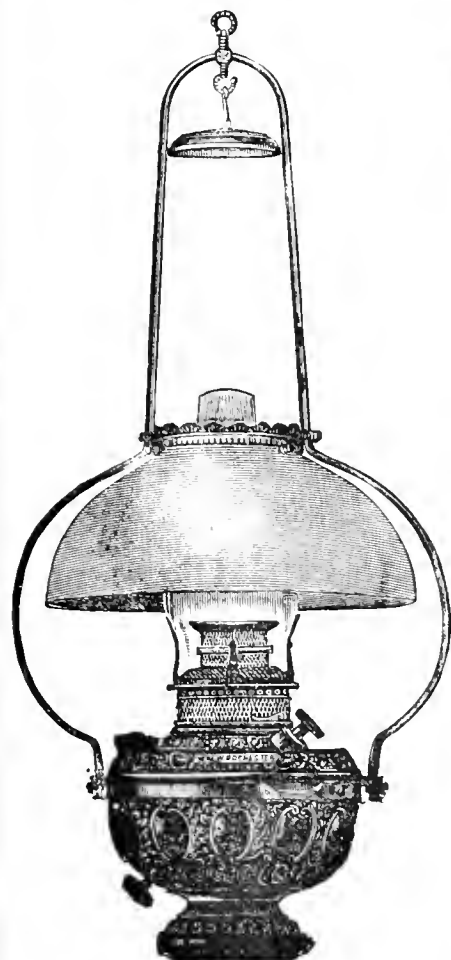
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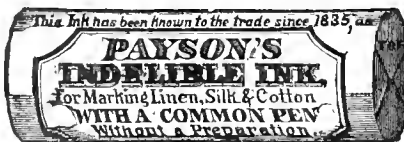
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Dr. Howard's Quinine Wine
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Strong's Summer Cure
Dr. Howard's Cod Liver Oil Emulsion

Preparation of Gauze Dressing.

Martenson (*La Medicine Moderne*) thus prepares dressings: Rolls of cheesecloth about thirty yards in length are folded and placed in jars. On these the following solutions are poured, depending upon what kind of gauze it is desired to produce.

Carbolized gauze, five per-cent.:

Colophene, 50 parts.
Castor oil, 15 parts.
Carbolic acid, 28 parts.
Alcohol, 99⁸, 207 parts.

Three hundred parts by weight of this mixture are taken to five hundred parts of gauze. Or the following may be used:

Vaselin, 30 parts.
Carbolic acid, 28 parts.
Benzin, 242 parts.

Three hundred for five hundred of gauze.
Thymolated gauze:

Thymol, 10 parts.
Essence of turpentine, 3 parts.
Paraffin oil, 10 parts.
Benzin, 200 parts.

Three hundred and three of the solution to five hundred of the gauze.

Sublimated gauze:

Bichloride of mercury, 1½ parts.
Chloride of sodium, ½ part.
Glycerin, 15 parts.
Distilled water, 500 parts.

Equal parts of the solution and gauze are employed.

Iodoform gauze:

Iodoform, 50 parts.
Paraffin oil, 10 parts.
Ether, 400 parts.

The weight ratio between the amount of solution used and the gauze is 460 to 500. The gauze is allowed to soak for twelve hours in this solution, is then dried, and stored in an antiseptic, air-tight jar.—*Therapeutic Gazette.*

A Solvent for Resins.

The organic compound known as dichlorhydrin has recently been found by Fleming to possess the property of dissolving most resins. Amber and the various copals all dissolve easily. This new solvent, if produced cheaply enough, will afford a way of dissolving up all the splinters of resin and amber turnings, and reprecipitating in large pieces. So strong is the solvent power of dichlorhydrin that it soon shows its property in destroying stoppers, either of cork or rubber. The compound seems to be capable of wide technical application. Unfortunately its production still presents difficulties, so that it cannot now be made at a low price. But experience shows that when a substance is demanded by industry, it will soon be produced at a price which will allow of its use.

Plants are alleged to grow faster between four and six o'clock in the morning than at any other time of the day.

Revising the Pharmacopœia.

(Report of the Committee on the U. S. Pharmacopœia.)

Your Committee on the Revision of the United States Pharmacopœia respectfully submit the following:

Oleum Anisi. Since anethol, a definite chemical compound, is conceded to be the active principle of this oil, it should either be substituted for the oil or a certain percentage of anethol should be required, and the oil should be valued by its content of anethol. Further, a method of determining the content of anethol should be devised.

Oleum Cinnamomi.—Cinnamic aldehyde is the active principle of this oil, and should either be substituted for it, or a standard requirement and method of assay for cinnamic aldehyde agreed upon.

Oleum Gaultherie.—Methyl salicylate is the active principle of this oil, and should be substituted in the Pharmacopœia, as the synthetic methyl salicylate is being generally used in place of the natural oil, and is better than the latter, as it is a pure and uniform product, and not a complex mixture of varying composition.

Oleum Limonis.—Citral gives this oil its value, and should either be substituted for it, or a citral requirement and method of assay be set up.

Oleum Betulae Volatile should be dropped, since it is practically identical with, and has been practically superseded by, methyl salicylate.

Oleum Bergamottae.—Linalool gives this oil its characteristic odor, and a linalool standard requirement would be useful to determine the value of the oil.

Oleum Myrciae.—The pure oil distilled from bay leaves (*myrcia acris*) does not meet the United States Pharmacopœia requirement of specific gravity and solubility, and manufacturers of this oil are compelled to adulterate the same with eugenol to make their oleum myrcia actually a U.S.P. article, while they sell the pure oil of bay under their own name, and naturally at higher prices, making the U.S.P. article an inferior article. The requirement should be so altered that pure oil of bay can be labelled U.S.P., as it should be.

Oleum Sassafras.—If safrol is the odoriferous principle of this oil, it should be substituted for it, or a safrol requirement and method of assay established.

Hyoscinæ Hydrobromas.—It has been maintained that scopolamine is identical with hyoscinæ, and some manufacturers have substituted the name scopolaminæ hydrobromas for hyoscinæ hydrobromas. In order to avoid confusion and possible danger, it is desirable to have this matter investigated and decided by the committee.

Physostigma.—The active principle is physostigmine, an alkaloid. As this drug is used quite extensively, it is desirable to devise a method of assay and establish a standard requirement for the drug.

*Read at the meeting of the A. Ph. A.

Codeine Sulphas and Codeine Phosphas should be made official, as they are being very generally used, and their use is increasing at a steady rate.

Cola Acuminata.—Kola nut is being used to such a large extent now, and is a valuable drug, inasmuch as it contains considerable caffeine, a valuable remedy, that it appears desirable to make it official, and establish a caffeine requirement and method of assay.

Extractum Senegae Fluidum and Extractum Scilla Fluidum. Acetic extracts of these are desirable, and investigation as to the best process is requested. The object for this desired investigation is for the purpose of changing the present formula for syrupus scilla compositus, which is not satisfactory.

Saw Palmetto Berries.—*Sabal serrulata* is being used in large quantities now, and the use appears to be steadily increasing. It would be well to make it official, since it appears to possess therapeutic value.

Adeps Benzomatus.—The U.S.P. directs that white wax be added during the summer months. This should be changed to stearic acid.

Spiritus Frumenti and Spiritus Vini Gallici should be dismissed from the Pharmacopœia.

Vinum Album and Vinum Rubrum should be dismissed from the Pharmacopœia.

The Medicated Wines of the Pharmacopœia should be dismissed and replaced by viresgars.

Tinctures.—Dismiss all tinctures having a fluid extract of the same drug official, and all fluid extracts having a tincture of the same drug official; substitute for such tinctures and fluid extracts a 50 per cent. extract under a distinctive title.

Tinctura Opii Deodorata.—The process of the U.S.P. is both wasteful and tedious. The following modification is suggested:

Granulated opium.....	100 grams
Deodorized gasolin 87 deg.....	q.s.
Alcohol.....	200 c.c.
Water.....	q.s.

Macerate the opium with 400 c.c. of gasolin for 24 hours, shaking occasionally, decant, and add 200 c.c. more of gasolin, and macerate 24 hours longer, shaking occasionally. Then transfer to a filter, and when liquid has ceased dropping add 200 c.c. of gasolin, and when all has passed through filter dry the opium, using a gentle heat if necessary. Macerate the opium in 300 c.c. of warm water for 24 hours, transfer to a percolator, and when liquid has ceased to drop add warm water to obtain 800 c.c. To this add the alcohol, and filter.

Linum, Sinapis Alba, Sinapis Nigra. entirely free from other seeds, are difficult to obtain in the market, and the standard should be changed, giving a maximum percentage of foreign matter allowed.

Powdered Acacia and Cambogia are frequently met with showing traces of starch, such contamination being caused either through the presence of small

quantities of foreign matter in the crude substance, or through unintentional adhesion of such matter in the mills where ground. A change should be made in their standard, limiting the amount allowable.

Syrups.—It is stated that cane sugar syrup, especially many of the medicinal syrups, gradually undergo inversion on standing, and that these syrups will, in many cases, disturb the digestion of those who are obliged to take them for any length of time. We recommend investigation of this subject, as well as of the utility of using glycerin in place of cane sugar syrup.

Pulvis Ipecacuanhæ et Opii.—There has been some complaint that the formula of 1890 does not yield the same therapeutic effect as that of 1870, and many pharmacists are obliged to use both formulas on that account. Investigation is suggested.

(Include here also the *Tinctura Aconiti Radicis*.)

Tinctura Nucis Vomice.—The formula of 1890 is not satisfactory; the tincture deposits extractive matter, and does not yield the clear product of the formula of 1880, nor does it otherwise present any advantage. We suggest a return to the formula of 1880, retaining the required standard of content of alkaloids of the present formula.

Tinctura Catechu Composita.—This tincture should either be made by maceration, or the substances used for making the same should first be mixed with some porous insoluble substance to facilitate percolation.

To What Extent Should a Candidate for Registration in Pharmacy be Required to be Familiar with the Subjects of Microscopy and Volumetric Analysis?

By T. D. REED, M.D., Dean of Montreal College of Pharmacy.

This question pertains to the work of State and Provincial Boards. Let us first consider the creation, the function, the work or these Boards. To obtain pharmaceutical legislation in a district in which none existed before, the pharmacists applying to the legislature invariably urge the public safety as the prime reason why certain powers should be given them to examine all persons who would open drug stores; the desire being that these persons should prove that they might be safely intrusted with the putting up of physicians' prescriptions and the handling of poisons.

The boards thus are created for the special purpose of ascertaining if the applicant can be considered fairly safe in the performance of these duties. The business of the boards, evidently, is not to enquire into the relative acquirements of candidates, nor to erect a high standard, nor a low standard, of scientific knowl-

edge, nor to test manipulative skill, but essentially, and perhaps solely, to form a conclusion as to the safety of the candidate as a dispenser and pharmacist.

The boards will be composed of so-called practical men, the appointments being made, it may be, for reasons political, social, or financial, and from the ranks of those who have not themselves, in most cases, had any college or scientific training.

Registration examinations have been heretofore largely, and in many cases entirely, by a written paper. This, it may be admitted, is the least troublesome method for the examiners, and the most expeditious for the candidates, and serves to exclude the very ignorant, and, as dense ignorance and unsafety go together, the result is often satisfactory.

But would it not be better if the boards made their examinations along these lines?—

Can this candidate be trusted to notice the error of a drug erroneously labelled, or decide upon it without a label—say, cream of tartar and tartar emetic, gentian root, and belladonna root, etc.? Would he recognize slips of the pen in prescriptions as to doses, or in drugs ordered?

It is not so much by the sphericity of his pills, nor the smoothness of his emulsions, nor by his ability to complete a chemical equation, that the safety of the public is secured, but by a sufficient practical acquaintance with the details of pharmaceutical work, and familiarity with the appearance and doses of drugs and poisons.

As a man might be a safe man and a successful pharmacist without any practice in volumetric analysis, or microscopy, the best proof of which is that many of the prosperous, and even leading, men who are appointed to boards have no practical knowledge of these subjects, it seems to me that volumetric analysis and microscopy need not be included in board examinations for registration.

Being myself a teacher, I do not belittle the importance of these subjects in a pharmaceutical education. I believe that a college diploma is not worth much which does not cover a strict examination on these subjects; but it is registration examinations *only* which are here discussed.

My conclusions may be stated thus:

"A Board of Examination for Registration should be almost entirely practical, and should comprise the recognition of drugs without label, a knowledge of posology, a testing as to ability to prepare in presentable form moderately difficult prescriptions, a general knowledge of the usual medical action of commonly used drugs, and some knowledge of toxicology.

"The subjects of microscopy and volumetric analysis are not required of candidates for registration."

The glass eyes of the world are mostly made in Thuringia, in Germany.

Unusual Doses.

The Pharmaceutical Council of Queensland have taken a bold step in deciding to send a circular letter concerning "unusual doses" to all the registered medical practitioners in that colony, and its effect will be watched with considerable interest by all pharmacists. The letter draws attention to the difficulties which frequently arise through the absence of an understanding as to the initialling or marking by the medical practitioner of doses in excess of the British Pharmacopœia standard. When such cases occur in prescriptions, the dispenser is at a loss to know whether it is intentional or a mistake, and he is often put to a great deal of trouble in verifying it. The circular states that the matter has been considered of so much importance in Germany that medical men are not allowed to prescribe excessive doses without specially marking them, and chemists must not dispense any medicine containing such a dose unless the prescription is so marked. The Northern Medicos are asked to underline all doses in excess of those ordinarily prescribed, and that if it is intended that the medicine be dispensed once only, or for a certain number of times, instructions be given to that effect.—*Pharmaceutical Journal of Australasia*.

Liquid-Filled Capsules.

Retail pharmacists, Emile Ferte writes in the *Spatula*, can quite profitably sell their own filled capsules of cubeb and santal oil, etc., using the ordinary cylindrical gelatin capsules, which give better satisfaction than the ovoid soft capsules.

Procure a well-seasoned board, about 1 cm. thick, and make as many holes in it as the number of capsules you wish to fill at one time. It is a good idea to make holes to accommodate the different sizes of capsules in the same board. Nail a thinner board on one side which is to be the bottom. Have the holes just large enough to hold the capsule without squeezing too hard. Put the empty capsules in the holes and proceed to fill.

Use small bottles fitted with the patent stopper-pipette (used as eye-droppers) and keep the oils in them. One pipetteful will fill from three to six capsules, and it can be done without getting any on the outside of the capsule. Do not fill too much. Let the upper part of the meniscus be just below the upper edge of the capsule. To seal, use a camel's-hair pencil and the following solution:

Gelatin (Cox's).....	g. 10
Acacia.....	g. 50
Boric acid.....	g. 1
Enough distilled water to make.....	c.c. 100

Use slightly warmed (about 40°C.).

The author has obtained better results with a mixture of gelatin and acacia than with either alone. Experience will teach one just how much to use, which should be sufficient to make a good seal, yet not enough to "slobber." Put the cover on with a spiral motion, pressing gently.

*Read at the meeting of the American Pharmaceutical Association.

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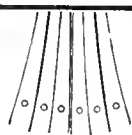
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By J. LEEVRE.

Industry uses an enormous quantity of diverse sorts of soaps in the fulling of woollens, in the dyeing and printing of textiles, the scouring of fleeces, etc. Some of these have a soda base, others one of potash, and the latter in these uses is to be preferred, as it gives the goods a silky feel, whereas soda, on the other hand, makes them somewhat harsh in handle. These soaps are sometimes made with oleic acid, sometimes with olive oil; the former are often the most alkaline, but this is because all necessary precautions in their manufacture have not been taken. Still, all soaps intended to be used industrially should be absolutely pure and neutral, as an excess of potash or of soda is harmful to the majority of textiles. As for foreign matters, they are equally hurtful—even rosin and silicate of soda, which can be employed so usefully for household soaps. The former of these articles gives woollen, silk, or cotton stuffs a shiny and greasy look that is unfavorable to the mordanting, dyeing, and finishing of the goods.

For these reasons, manufacturers who use soap in their business have it analysed frequently, and keep themselves informed concerning the composition of the particular sorts they purchase, so that they generally get them pure. Herewith we give the composition, according to Moride, of the principal soaps used in the industries.

Menotti's Hydrofuge Soap is used to waterproof tissues. It is got by decomposing a rather alkaline ordinary soap, with a solution of sulphate of alumina of 15 deg. Bé.

Soap for spots and stains is made with

Parts by Weight.	
Cocaoanut oil.....	25
Caustic soda lye, 36 deg. Bé.....	13
Carbonate of potash, sol., 10 deg. Bé ..	3
Sea salt sol., 13 deg. Bé ..	4
Oxgall ..	4
Ultramarine ..	0.2
Bichromate of potash.....	0.2
Water ..	0.4
Turpentine.....	0.5

The cocoanut oil is first saponified and colored with the ultramarine; the lye and the seasalt are then added; the mixture is stirred; then the bichromate of potash dissolved in the water, the oxgall and the turpentine are poured in.

Oxgall soap for the same purpose as the above is made with

Parts by Weight.	
Cocaoanut oil.....	50
Ultramarine ..	0.1
Caustic soda lye, 40 deg. Bé.....	20
Carbonate of potash sol., 10 deg. Bé ..	4
Oxgall.....	3
Bichromate of potash ..	0.05
Sea salt solution, 15 deg. Bé.....	2.5
Ammonia liquid.....	2.5
Turpentine ..	2.5

After having saponified the oil colored with the ultramarine the carbonate of potash is added with the oxgall, then the bichromate with the sea salt. The whole is stirred, then the two last substances are added.

Copper and Iron Soaps used to give plaster articles the appearance of antique green bronze or that of Florentine bronze are made by decomposing an alkaline soap with a solution of sulphate of copper or of sulphate of iron. They are soluble in fatty oils, and specially so in turpentine.

Wax Soap employed under the name of furniture polish for cleaning furniture and parquet flooring is prepared in the following manner: 125 grams of pure carbonate of potash are dissolved in 4 kilos of water and heated, then 1 1/4 kilos of yellow wax and 165 grams of transparent soft soap are added. The whole is boiled for a quarter of an hour, with constant stirring. A more or less fluid matter is obtained, according to the rapidity of the evaporation.

Pumice Stone Soap is got by dissolving cocoanut oil soap in a small quantity of water and running it into moulds. Half its weight of powdered pumice stone is added, and the whole is stirred until it sets.

Sand Soap contains

Parts by Weight.	
Cocaoanut oil.....	50
Caustic soda lye, 38 deg. Bé.....	30
Soda crystals.....	10
Sea salt sol., 20 deg. Bé.....	10
Water ..	30
Glycerine.....	10
Fine sand.....	150

After saponification the sea salt is added, together with the water, glycerine, and soda crystals. The sand is incorporated in the moulds.

Soap to preserve skins is made with

Parts by Weight.	
Pulverized arsenious acid.....	32
Dried carbonate of potash.....	12
Distilled water ..	32
Marseilles mottled soap.....	32
Powdered quicklime ..	40
Refined camphor.....	10

The arsenious acid and the carbonate are dissolved in the distilled water, and the mixture is brought to the boil; the soap is added cut into as fine shreds as possible, and the mass is taken off the fire. After complete solution the quicklime and the camphor are added, the latter being pulverized with the aid of spirits of wine. Finally, the mixture is ground up thoroughly.

MEDICINAL SOAPS.

In medicine and pharmacy soaps are used for various purposes with a base of alkali or alkaline earths—the first are soluble, the others insoluble. Amongst the soluble soaps, that is to say, those with a base of potash, soda, or of ammonia, there are three descriptions: First, those which contain substances capable of giving them new properties without taking away those which are proper to them; secondly, medicaments made by adding extracts to soap powder; and, thirdly, alcoholic preparations containing enough soap to make a sort of jelly. The insoluble soaps have generally oxide of lead as a base, and are known as plaisters, salves, or ointments. They are prepared

with or without water, and in certain cases at a temperature which greatly passes that of boiling point. They then take a brown color by reason of the alteration of a part of the fatty body.

Grease Soap is made with

Parts by Weight.	
Veal suet ..	50
Soapmakers' lye.....	25
Distilled water.....	100
Sea salt.....	10

The suet and the water are heated together in a porcelain capsule. After fusion the lye is added little by little, stirring constantly. The heat and the stirring are maintained until complete saponification. The sea salt is then added, the solution being assisted by a very slight agitation. The soap which forms on the surface is taken off and drained. It is then melted at a gentle heat and run into moulds, where it solidifies on cooling. The soapmakers' lye in this and succeeding recipes is composed of

Parts by Weight.	
Dry carbonate of soda.....	5
Quicklime.....	4
Distilled water.....	60

The solution is filtered through a cloth. The residue is washed, and evaporated quickly in a silver vessel until the boiling liquid shows a strength of 36 deg. Bé.

Medicinal or Amygdalin Soap contains

Parts by Weight.	
Oil of sweet almonds ..	21
Soapmakers' lye.....	10

The oil is put into a porcelain or glass vessel, the lye is added little by little and slowly, taking care to stir it until a complete mixture is obtained. The whole is then kept for several days at a temperature of from 18 to 20 deg. C., and the mixture is stirred from time to time with a glass rod until it has acquired the consistency of a soft paste. It is then run into porcelain moulds, from which it is taken out when it is entirely solidified. The soap should not be used in medicine until it has lost the excess of alkali which it retains after its preparation, and this will occur after it has been exposed to the air for one or two months.

Transparent Phenic Acid Soap contains

Parts by Weight.	
Cocaoanut oil ..	400
Suet ..	300
Castor oil ..	300
Soapmakers' lye.....	550
Spirits of wine ..	300
Glycerine.....	200
Sugar syrup.....	400
Crystallized phenic acid.....	80
Palm oil.....	5

The cocoanut oil and the suet are melted, and the castor oil is added, followed by the lye mixed with the spirits of wine. To the paste thus made the phenic acid, liquefied beforehand, is added, and finally the palm oil. The whole is then run into moulds.

Arsenic Soap is composed of

Parts by Weight.	
White soap.....	625
Arsenic ..	500
Quicklime.....	10
Camphor.....	60
Water ..	625

The soap is dissolved in the water warmed, and the other substances are added, mixing the whole with care.

Tar Soap is made with

Parts by Weight.

Cocoonut oil.....	100
Beech tree tar.....	15
Soapmakers' lye.....	60

Lignum Vitæ or Guaiacum Soap is made of

Parts by Weight.

Amygdalin soap.....	20
Lignum vitæ resin.....	10
Spirits of wine.....	1

The Jalop and Scammonium Soaps are made in the same way by replacing the lignum vitæ resin with these drugs.

Camphor Soap contains

Parts by Weight.

White soap.....	500
Camphor.....	8
Blanched bitter almonds.....	60
Tincture of benzoin.....	40

The almonds are reduced to a paste, the camphor is added, then the tincture of benzoin and the soap; and the mixture is moulded in the water bath.

Naples Soap is composed of the following mixture, which is perfumed with a little essence of thyme, sassafras, neroli, or gillyflower :

Parts by Weight.

Amygdalin soap.....	15
Grease soap.....	15
Nutmeg butter.....	8
Cocoa butter.....	8
Lauel water.....	15

Ammoniacal Soap contains

Parts by Weight.

Oil of sweet almonds.....	8
Ammonia.....	1

or another formula gives

Grease soap.....	30
Spirits of wine.....	250
Ammonia.....	8

The soap scraped into shreds is dissolved in the spirits of wine, and the ammonia is added.

Turpentine Soap is prepared by pulverizing and sieving carbonate of potash, and adding essence of turpentine, and then turpentine, and triturating the mixture until it has taken the consistency of honey. The proportions are as follows :

Parts by Weight.

Refined carbonate of potash.....	1
Essence of turpentine.....	1
Turpentine.....	1

Vaseline Soap is made by melting slowly

Parts by Weight.

Cocoonut oil.....	10
Vaseline.....	2

and adding 50 grammes of soapmakers' lye. When the mass is quite clear it is run into moulds and perfumed.—*Oils, Colors and Dye-stuffes.*

The Japanese do not drink milk, as their religion forbids this or the consumption of animal food. Fish is not considered to come within this category, and is largely eaten.

The Insect Powder Plant.*

By P. MACOWAN, F.L.S.

The Agricultural Department of Cape Colony having, in response to numerous inquiries, imported a supply of pyrethrum seed for distribution, the following particulars of the history and cultivation of the plant taken from the *Agricultural Journal*, No. 33, Vol. 2, now out of print, will be of interest to those of our readers who know the value of petites cultures in piling up little profits :

During the long series of desultory campaigns kept up by the Russian Government in the Caucasus, and resulting in the annexation of the country, the military cantonnements simply swarmed with fleas. Like Pharaoh's frogs, these insects were everywhere, but were not as easily kept at bay. The floors of some of the tents seemed to be alive with them, and the men were at their wits' end to get rid of the pest. They so effectually banished sleep that whole companies would prefer to lie in the open and take their chance of weather, rather than share the tents with the fleas.

Some of the Tcherkess prisoners, who knew the ways of the country better than their invaders, at last let out the secret of a plant whose smell was fatal to the lively flea. This was the pyrethrum roseum. It did not appear to be in commerce, but was gathered up the mountain slopes at an altitude of 6,000 to 8,000 feet whenever wanted, hung up to dry, and rubbed to powder between the hands. However, before long the collection of the plants became a regular occupation among the shepherds, and a Russo-Armenian merchant named Yumtikoff bought all that was brought in, and manufactured the powder.

From that small beginning arose a very considerable industry, the export tax upon which is a valuable item in the revenue of the province.

It is not quite clear whether the success of *p. roseum* as an insecticide induced trials of other allied species, or whether the mountaineers of Dalmatia had already knowledge of the properties of a similar plant. But ere long pyrethrum cinerariæfolium was largely cultivated in the Littoral, and so anxious were the growers to keep the monopoly in their own hands that all the seed sent out for sale to agents of other countries was carefully baked to prevent its germination. In 1856 Mr. C. Willemot commenced the cultivation of Caucasian pyrethrum on a large scale in France. His plants were examined by Duchartre, and, not being recognized as a slight variety of *p. roseum*, were called by him *p. willemotti*, Duch. This accounts for the two synonyms in vogue.

For ourselves, it will be handiest to call the two species Caucasian and Dalmatian pyrethrum, respectively. Willemot recommends a somewhat open, dry soil, well drained, and without too clayey a character, the plant being very ready to die

when germinating in too much humidity, and easily killed when mature by water logging the nursery bed with careless irrigation. The seed is best mixed with light, sandy soil, sown on the surface of a well-prepared bed, and covered with a thin stratum of sandy mould. A light rolling after sowing is beneficial. The bed must not be allowed to dry out to the shallow depth of the seed. In about thirty days the young plants make their appearance, and as soon as large enough to be handled are transplanted six inches apart on a well-prepared bed. Three months subsequently they are retransplanted at double the former distance. The plants bloom in the spring of their second year. Thus far for the French practice. Here, the greater heat of our climate, and a little careful management, may ensure flowering the first season. The best rule will be to treat the plant in about the same way as we are accustomed to treat asters, zinnias, and the like.

In California the cultivation of the Dalmatian plant is carried on by a settler from Dalmatia much in the same way as Mr. Willemot has directed—a fine, loose, open soil, with a little old manure, form the nursery bed. The seed is mixed with sand, sown on the surface, and raked into not more than half an inch in depth. Too much water will destroy the seed. Weeding and transplanting in damp weather, when about a month old, concludes his directions.

Of the two species, *p. roseum* is by far the more showy. Its flowers are not at all unlike a rather poor aster, the rays varying from pinkish-white to deep blood-red. The leaf is cut like a fern. *P. cinerariæfolium* is white flowered, and has a considerable resemblance to the lasiospermum, or Cape white camomile-weed, which covers outspans and roadsides, having a yellow disk and brilliant white rays, the underside of which is discolored to a dull-gray. The leaves are also fern-like, but more coarsely divided than in the *p. roseum*.

In the manufacture of the powder the flower heads must be gathered in fine weather, immediately on their opening, as that is the period when the essential oil, on which its insecticide virtue depends, is most plentiful. They are then dried in the shade, where a draught of air can be secured. Exposure to the sun, to moisture, or to artificial heat deteriorates the produce extremely. When quite dry they may be ground at once, or preserved in tin canisters till the whole harvest is ready for manipulation. The plants themselves are also cut to within four inches from the ground, and, after drying, are ground up. Of this inferior produce, one-third part by weight is added to the powder of the blossoms. There is no doubt that the Colonial snuff manufactories could grind a better and more saleable article than could be prepared by any foreign appliances. Of course, a coffee mill, finely set, will somehow grind the material, but as the effect of the powder depends to a certain

extent on its degree of fineness it would be a pity to lose the advantage to be got by the special work of the snuff-mill and graduated sieves.

It is not to be expected that pyrethrum will be of any great use as an insecticide in agricultural operations. Mr. Willemot, zealous to promote the new industry, proposed to protect wheat and maize from weevil by mixing ten ounces of his powder with ten bushels of grain. The effect would be scarcely appreciable. With bisulphide of carbon readily applied and certain in action, there is little reason to try pyrethrum.

It has been tried in the United States to destroy insects in gardens in various ways, e.g., in form of dry powder puffed over the plants, in a mixture with water, and in fumigation. In all cases there is so much loss of the volatile oil by free contact with the atmosphere that its use can scarcely be said to be economical on any but a very small scale. Roses and cinerarias may be cleared of aphids or green-fly by its means, but even in these cases the plan is amateurish, and presents no advantages over the old methods with tobacco water and tobacco fumigation. Domestic use as a safeguard against the lively flea is, probably, the proper outlet for the sale of pyrethrum.

Preparation of Papers for Preserving Goods or Articles Wrapped in Them.

An anonymous correspondent of the *Pharmaceutische Centralhalle* says:

Preserving papers, or papers the object of which is to preserve in a normal condition articles or materials wrapped in them, are prepared, as a general thing, by immersing and imbibing paper of a suitable nature in solutions of a preserving material (varying, of course, according to circumstances), draining off, passing between rollers, and drying at a suitable temperature. After drying, the paper is usually pressed or planished and put up in packages.

With the foregoing as general directions, we reproduce the following formulæ from the *Neueste Erfindungen und Erfahrungen*:

BUTTER PRESERVING PAPER.

Cooking salt, in fine powder. . . . 160 grains.
Saltpetre, in fine powder. 320 grains.
Whites of. 20 eggs.

Beat the albumen to a froth, mix the salts, and add the mixture to the froth, little by little, with constant stirring, until a solution is formed. In this imbibe a good quality of bibulous paper and hang it across strings to dry. When dry go over each sheet with a hot smoothing iron, the face of which is kept well waxed.

PAPER FOR SILVERWARE.

Caustic soda. 6 parts.
Zinc oxide. 4 parts.
Water sufficient.

Dissolve the caustic soda in water until a density of 20° Beaume is obtained (s.g.

1.161, to obtain which, near enough for all practical purposes, take 11 parts sodium hydrate to every hundred parts of water), add the zinc oxide and boil for two hours, if possible under a pressure of five atmospheres. After cooling, thin down with water to 10° Beaume (s.g. 1.075). Proceed as in the general directions. [Paper for wrapping silver should be soft and thin, so that it will cling to the surface of the article wrapped in it, without danger of scratching it. A good article of tissue paper is excellent, but the best is a Japanese fibre paper of great softness and thinness, yet very strong.—Editor *National Druggist*.]

SALICYLATED PAPER.

Divide any desired quantity of salicylic acid into two equal parts. Make a solution containing 3 parts of glauber salt and 7 parts of borax in 58 parts of water, heat and add one of the parts of salicylic acid. Digest the remaining half of the acid in a volume of hot glycerin about equal to that of the saline solution. Mix the two liquids and then carefully add water until a solution of about 3 per cent. of salicylic acid is obtained. This answers for thin paper, but a thicker paper requires a 5 per cent. solution. The best paper for the purpose is one having a satin finish. If the salts show a tendency to crystallize out on the paper on drying, more glycerin is needed. Each sheet should be put in separately and kept immersed for four or five minutes, the solution being maintained at a temperature of not less than 150° F. The paper should be dried at ordinary temperatures and kept pressed between pasteboard, or in rolls.

WATERPROOF PAPER.

In a saturated aqueous solution of borax dissolve a sufficient quantity of shellac, by the aid of a gentle heat. If a colored paper is desired, any suitable aniline color may be added to the solution. Dip the paper in sheets separately and proceed as directed in general directions.

Another recipe for waterproofing is as follows: Dissolve 24 parts of alum and 4 parts of shaved white soap in 32 parts of water. Dissolve in a similar quantity of water 6 parts gum arabic and six parts of glue. Mix the solutions; heat, with stirring, until homogeneous, and then imbibe the paper in the hot liquid. Dry over threads at ordinary temperature, or in moderately warmed rooms.

PAPER FOR RETAINING MOISTURE.

Make a solution of potassium acetate or sodium acetate, and add to it either grape sugar, dextrin, or powdered starch. A little carbolic acid or salicylic acid should also be added, to prevent chemical changes. Treat the paper with this solution after general directions.—*National Druggist*.

For deaf ladies an ingenious inventor has devised a fan in the handle of which a small ear trumpet is concealed.

Pill-Coatings.

FACTS WITHOUT ARGUMENTS FOR OF AGAINST HOBBY COATINGS.

By JEAN ROBERT MEYER.

Have you ever tested the solubility of the commercial, or extemporaneously prepared, pills carried in your stock? If not, make use of this point to your business interests. Your pills, *i.e.*, those of your own manufacture, can and should be far ahead in solubility.

The excipient and coating are the two stumbling-blocks. Dusted pills are unsightly, usually assume a stony hardness, and neither taste nor odor is hidden.

The coatings to be spoken of are for use by the dispensing pharmacist in the prescription department. Pills to be coated should have a smooth surface and be absolutely free from dusting powder: the mass must not set, and be plastic yet tenacious.

METALLIC COATINGS.

The metals employed in coating pills are: Gold, silver, and aluminium, beaten out into very thin leaves. In the wholesale manufacture the waste cuttings from booked metals are used. The thinnest leaves are obtained from gold; then follows silver, while aluminium leaf is about twice the thickness of silver. Though aluminium forms a good covering, it is lacking in lustre and presents a leaden appearance. All combinations, with the exception of mass containing mercuric sulphides, also iodides, may be covered with either of the metals mentioned. Those combinations containing mercury, sulphides, or iodides, should first be coated with pill varnish, gum arabic water, or tincture of tolu.

For metallic coatings, if I have the choice of the excipient, I prefer lozenge-sugar with 5 per cent. powdered tragacanth mixed with the medicinal ingredients and mass with either water alone or simple syrup and water *aa*. Perfect, round, smooth pills, of proper mass absolutely free from dust, acquire a beautiful coating equal in appearance to the brightest offered for sale. The amount of metal required varies from two to four leaves for 24 pills, according to the smoothness of the box used for coating. The box for metallic coatings is an ordinary pasteboard pill box. With repeated use the box absorbs metal, becomes coated, and less metal will be required and a higher polish obtained. The pills must not be moistened with anything. "Perspiration" of the pills, caused by slightly heating them, is sufficient to cause adhesion; and drowning of the metal is impossible.

Modus operandi: Put in the box one or two leaves of the metal (a separate box for each metal), the perfect pills on top; then another leaf or two of the metal over the pills and close the box. Rotate quickly over an alcohol flame (avoid heat). The coating is almost instantaneous—five to ten seconds, according to the

number of pills and acquired skill. Avoid using an excess of metal; it does not serve to improve the coating, and entails additional manipulation.

COATINGS OBTAINED BY VARIOUS INGREDIENTS IN SOLUTION.

Beware of concentrated, thick solutions if good appearance is desired. It is true, the work may have to be repeated two or three times, but a tenacious and lasting coating is the result.

Hurried coatings are obtained with the usual dissolved preparations in stock; simply rolling the pills in these solutions and placing in a capsule of wax paper today, or dipping the pills, fastened upon the ends of pins, into the solutions. The punctures can be closed, after the pills are sufficiently dry, by means of a camel's hair brush dipped into the solution. Pills coated in a hasty manner usually assume an unsightly appearance on keeping.

The surface of the pills must be dry. A large porcelain dish, suspended by three strings, is the best utensil for this work; though an agateware, or the so-called photographer's white enamelled ironware, will answer the purpose. Even a round, smooth tin box might be employed. Tilt the dish to one side. Use no more liquid than is necessary to moisten the pills. Add the pills while still holding the dish to one side, and, with a horn or rubber spatula, move the pills briskly; then rotate quickly, using the whole surface of the dish, until the pills show no tendency to adhere to each other; dry sufficiently, without heat, and repeat the operation in order to obtain the degree of coating desired.

Benzoin, mastich, myrrh, olibanum, tolu, are the usual resinous coatings. Clear solutions in 90 per cent. alcohol, preferably not stronger than 1.20 (5 per cent.), give good results. Better satisfaction, however, is obtained with either of the following varnishes:

Mastich.....	5.0 grms.
Sumatra benzoin.....	5.0 grms.
Absolute alcohol.....	10.0 grms.
Ether.....	80.0 grms.
Filtered by weight.....	100.0 grms.
Mastich.....	5.0 grms.
Balsam tolu.....	25.0 grms.
Absolute alcohol.....	40.0 grms.
Ether.....	90.0 grms.
Filtered by weight.....	150.0 grms.

Cinnamic and benzoic acids frequently cause spotting of the finished coating. To avoid this previously treat the balsams several times with hot water, dry thoroughly, and use for solution.

CASEIN COATING.

Cottage cheese is washed several times with hot water, the water pressed out, and the casein dried quickly over the water-bath. When dry, macerate in a 2 per cent. soda solution either alcoholic or spiritus ætheris U. S. P. After filtering, the solution is ready for coating.

COLLODION COATING.

This is one of the easiest and quickest made, but dilute the official preparation with twice the quantity of ether.

GELATIN COATING.

A 10 per cent. watery solution of best white gelatin is liquefied by warming, and put in the warm coating dish. The perfectly dry pills are rolled in the gelatin until evenly covered. They are then placed upon paper, or a tin or other dish previously oiled to prevent sticking, care being exercised that the pills are separated from each other. After drying at room temperature, coat again. Agar may be used in the same way. The solution is made in strength of 1 to 1½ per cent. The above gelatin solution melts at about 25° C.; the agar solution at about 40° C. Regarding the quality of agar, the large, elongated, square-cornered pieces are preferable.

SHELLAC COATING.

(Ganomed pills), consists in using a filtered alcoholic (U. S. strength) solution of best blond shellac, 1 part in 7 parts alcohol.

GUM ARABIC.

Dilute the official mucilage with equal parts of simple syrup and water and coat in a warmed dish.

WAX.

Wax dissolved in ether may be used for a pill coating, but it is of questionable advantage, except as a protective for a second coating of another nature.—*Southern Journal of Pharmacy.*

Artificial Antitoxin.

Experiments instituted by Dr. Smirnow, of St. Petersburg, also by D'Arsonval and Charvinin, Paris, have led to the conclusion that diphtheria antitoxin can be produced by means of electrolysis. According to Smirnow, the process consists first in chlorination or electrolysis of the toxia, containing 1 part sodium chloride in 200, with carbon electrodes, and then removing the chlorine by replacing the carbon at the positive pole by a repeatedly changed silver electrode. The efficacy of the antitoxin thus produced was found to be proportionate to the continuance of the chlorination; so that taking 200 c.cm. of toxin broth with 0.5 per cent. sodium chloride for electrolysis and chlorination during seven hours, with 45 milliamperes after subsequent silver treatment for five or six hours, and adding 3 c.cm. of 20 per cent. caustic potash solution, an antitoxin was obtained, of which 0.5 to 1 c.cm. was sufficient to cure a guinea pig 16 or 18 hours after being infected with 0.1 cc.m. diphtheria broth culture, a dose that was sufficient to kill the test animal in 24 or from 30 to 35 hours after injection. Dr. Smirnow infers from his experiments that antitoxin is an oxidized or hydroxylated toxin; that the electric current has not a specific power of producing antitoxin under the conditions described, but that the antitoxin obtained by the aid of electricity originates from the reac-

tion of the primary electrolytic products of the saline solution with the products of the bacteria—that, in fact, the influence of the electricity is exercised from the chemical side. Hence it is inferred that the production of a specific for the treatment of diphtheria is not a monopoly of the animal organism, but that it can be effected better and more simply by means of electrolysis. — *Berl. Klin. Wschr. through Phar. Journal.*

Pharmacy in Haiti.

By E. L. N. ST. CYR.

The pharmacist in Haiti is looked upon as a professional man, and he is on a footing with doctors and lawyers. To practise pharmacy in the island everyone must be qualified and obtain a license from the government. The examination for qualification is very simple, consisting of the usual subjects, and is conducted by the School of Medicine of Port-au-Prince, but all diplomas from Europe are accepted; the holder simply has to submit his paper to the "Jury Médicale" in order to be approved, which they generally do without any difficulty, and grant their license to practise in the course of a few days.

The practice of pharmacy is carried on in the same style as in France—that is, the pharmacist deals solely with pharmaceutical and chemical preparations, although the tendency of late has been to imitate the American style. The "Codex Medicamentarius" is the only Pharmacopœia recognized. In the pharmacies no "soda-water fountain" is to be found, as is usual in the United States and Jamaica.

Doctors do not dispense their own prescriptions, as is the custom in Jamaica. The doctors in Jamaica charge 5s. per visit, including medicines. Doctors in Haiti, on the other hand, charge two piastres (7s.) per visit *à domicile*, and four piastres (\$4 or 14s.), which does not include medicine. This tariff is charged in Aux Cayes; but in Port-au-Prince and Jacmel it is \$10 per visit. Midwifery cases are from \$50 to \$150.

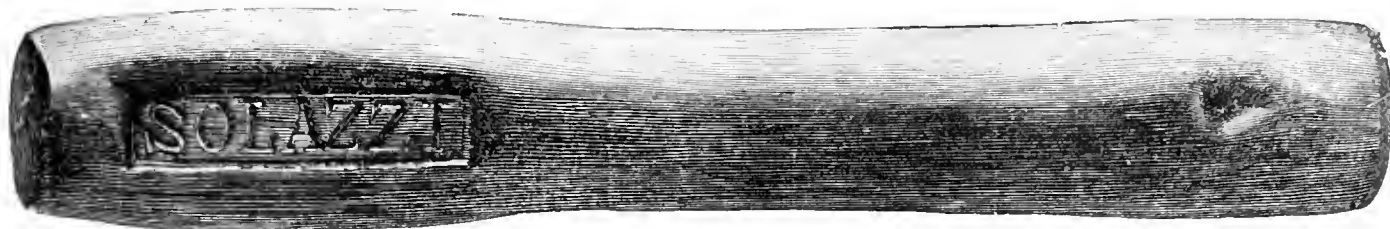
The prices charged for an ordinary 3 oz. to 4 oz. mixture vary from \$1 to \$2, and, as other things are in proportion, pharmacy is one of the best occupations in some parts of Haiti. In an ordinary pharmacy a clear profit of about 30 piastres (or about £6) is made per diem; on Saturdays about \$100 to \$200 are coined, due to the mass of country people who come to town chiefly to buy castor oil, manna, Glauber's salt, and Epsom salt. A great deal of "coupe rise," or sulphate of iron, is sold, in order to add to a decoction of logwood, which is extensively used for dyeing.—*Chemist and Druggist.*

It is a curious fact that while the right hand of a man is usually the larger, it is the left foot which is the larger and stronger of the two.

“Solazzi”

THE CHEMISTS' BRAND

Liquorice Juice



The Testimony of “The Lancet”

The following is from “The Lancet” of March 30th, 1895:

“The above brand has long been known to be of standard purity. We found the specimen to be completely soluble in water, and entirely free from impurities of any kind. It is, therefore, well adapted for the pharmaceutical purpose for which it is so useful, while as a popular demulcent it is both safe and reliable.”

Recommended also by “The British Medical Journal,” “Health,” “The Chemist and Druggist,” “Food and Sanitation”

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BEEF, WINE, AND IRON.

In Pint Bottles.....\$5 00 per doz.

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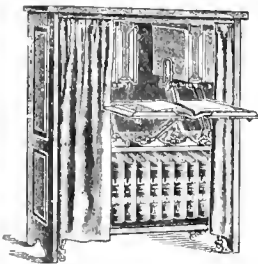
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The Professional Side.

By FRANK EDEL.

No one welcomes the change from the old dark, dingy apothecary shop of former days to the bright, cheerful, well lighted pharmacy of to day any more than I do. But I am afraid all our tendencies have not been for the good of pharmacy.

The present tendency is, away from the laboratory, to depend more and more on the manufacturing houses for pharmaceuticals, which we can and should make ourselves. As is naturally to be expected, these manufacturing houses have done nothing to check this, and their representatives' strongest argument is: "With our improved process and skilled labor, and manufacturing in the quantities we do, we can produce these goods for less money than they can be produced in the pharmacy, and can sell them to you as cheaply as you can make them." And many pharmacists are only too eager to believe these statements.

The tendency to depend more and more on the manufacturer for supplies has done more to lower the standard of pharmacy than all other causes combined. It has made the pharmacist, in many instances, come down to the level of the merchant, the tradesman; simply being a dealer in the products of the labor of others, and not depending on himself at all. If he wants to make a tincture, he simply takes down a bottle of the fluid extract, looks at the directions on the label, and makes the tincture accordingly. If he knows anything about pharmaceutical requirements, such a course will soon cause him to forget what he knows; but the chances are that he neither knows nor cares what the requirements of the pharmacopeia are.

For some years I have been so situated that I could watch this tendency, and I believe it is on the increase. The number of pharmacists who run to the wholesaler for every little supply they want is much larger than is generally supposed. You speak about it, and the pharmacist will tell you he has no time to devote to the productants of these goods, no time for laboratory work; and nine times out of ten the same man will lament in the next breath the decrease in the profits of the drug business over what they formerly were.

Right here let me say that it is the duty of the pharmacist to dispense nothing but the best, and, if he prepares his own pharmaceuticals, he is in a position to know their quality. There is no reason why any pharmacist should pay somebody else for doing what he can do himself. There is no need to neglect any other part of pharmacy in order to give the laboratory proper attention. It does not take a great deal of time, and certainly but few pharmacists are so pressed for time that they could not give it the attention it deserves.

I do not wish anybody to understand that I am, for one instant, advocating the neglect of the mercantile part of pharmacy.

No one recognizes its importance more than I, but I do not believe it necessary to neglect the professional side of pharmacy in order to give the mercantile part the attention it deserves. It is no difficult matter to make a nice elixir or syrup, and when we make them we know their quality, and anyone who will take the pains to investigate will find that it is much cheaper to make them himself. Again, in every pharmacy the sale of patents constitutes a large portion of the store's trade. A prominent wholesale druggist told me lately that he believed that the sale of patents was fully forty per cent. of his drug sales.

Every pharmacist can do something toward mitigating this evil, and at the same time increase his own profits. Let us take a cough medicine, for instance. This class of remedies has large sales. Every pharmacist knows that a great many of his calls are for "some good cough remedy." This being so, if he has a good remedy of his own, he has here a good opportunity to sell it. But he should not be content with anything less than a good formula, and, having the formula, he must put the preparation up in nice shape.

Some time ago I stepped into a prominent store, and the proprietor showed me a new blood remedy he was putting up. He assured me that the formula was first-class, and I haven't the slightest doubt that it was; but no matter how excellent the preparation was, he was handicapping it by the way he was putting it up. He simply put it in a plain oval bottle, and the label was even plainer than the bottle. It would not have cost him anything extra to have put it in a blake bottle, and but a cent a bottle extra to have had nicely-printed cartoons to put the bottle in. In this way he would have had a nice package that would have gone a great way toward selling his preparation.

Another pharmacist was showing me a beef, iron, and wine of his make he was offering for sale. There was a heavy precipitate in the bottom. When I called his attention to it, he said it didn't interfere with the medicinal activity of the preparation. He was, no doubt, right in this; but it was a serious drawback to its sale. And either he should modify his formula so as to prevent this, or else make up his preparation in such quantity that he can allow it to stand so as to allow precipitation to take place before bottling. There can be no denying the fact that the appearance of an article goes a great way toward selling it, and that no matter how meritorious an article may be, it is seriously handicapped if not put up in nice shape.—*The Spatula*.

To immediately cure hiccough it is said that all that is necessary is to strongly push the tongue out of the mouth and hold it so for a minute or two.

Cotton seed oil is frequently used as an adulterant for lard and other expensive oils.

Carbon Tetrachloride as a Cleansing Agent.

In view of the fact that it dissolves tar, fats, paraffin, stearin, etc., better than benzine, and at the same time yields a non-inflammable vapor, carbon tetrachloride is calculated to replace the more dangerous benzine to a considerable extent for cleansing purposes. Its faculty of combining with soap, oils, ether, and alcohol, renders it valuable in many technical processes, particularly for washing, along with benzine soap and benzine. For this purpose acetic acid may be added to prepare certain colors, and ammonium chloride to increase the cleansing power, both of these ingredients being previously mixed with alcohol.

Carbon tetrachloride is also useful for removing grease and other stains, and does not leave rim marks like benzine; several of the grease removing preparations now on the market consist of mixtures of this substance with benzine. Being inflammable it may be used by artificial light, a great consideration in the winter time, when the days are short.

So far as has been ascertained, carbon tetrachloride does not affect the color of woollen or silk goods dyed with aniline colors, nor does it act on the substance used in the process of "finishing" textile materials.—*Deutsch. Farber Zeitung*.

Mercuric Silicofluoride as a Bactericide

An antiseptic action silicofluoride of mercury is, according to Hallion, Lefranc, and Poupinel, the most powerful of all known substances. Experiments on cultures of various pathogenic bacilli show that this substance is at least twice as active as corrosive sublimate, while it is, at the same time, less toxic. Experiments at the Richat hospital show that the silicofluoride in one per cent. aqueous solution, or in a vaseline ointment containing 1 in 2,000, has a remarkable and rapid action on surgical wounds, abscesses, eczema, and other skin affections, without any appreciable drawbacks.—*Bull. Gén. de Thérap.*

How Artificial Camphor is Made.

A current of dry hydrochloric acid gas is passed slowly through spirits of turpentine cooled by a freezing mixture. The liquid darkens and deposits crystals, which are dissolved in alcohol and precipitated by water. The separated crystals are drained and dried. They are perfectly colorless, with an odor like camphor. The ordinary temperature is sufficient to cause it to sublime like ordinary camphor in small brilliant crystals in the bottle in which it is preserved. It is insoluble in water, and gyrates when on the surface of that liquid like true camphor.

To preserve ink add from 0.1 to 0.2 gms. of salicylic acid to one litre of ink.

Canadian Opticians' Association.

At the meeting of the Canadian Opticians' Association, held at Toronto on September 7 and 8, 1896, the following officers were appointed: President, J. H. H. Jury, Bowmanville; first vice-president, E. J. McIntyre, Chatham; second vice president, R. Hemsley, Montreal; secretary-treasurer, Frank Ellis, Toronto.

A strong executive committee was appointed, and the meeting was most enthusiastic.

The executive committee was instructed to prepare constitution and by-laws for the organization, and report at a future general meeting.

EXECUTIVE COMMITTEE MEETING.

The meeting of the executive committee was held on September 18, when the following constitution and by-laws were framed for confirmation at the next meeting.

CONSTITUTION.

ARTICLE 1—NAME.

This organization shall be known as "The Canadian Opticians' Association."

ARTICLE 2—OBJECT.

To attain a higher scientific and practical proficiency among opticians in the execution of ophthalmic prescription for lenses, and the adaptation of glasses to the sight.

*ARTICLE 3—OFFICERS.

The officers of this association shall consist of the president, first vice president, second vice-president, secretary-treasurer, and executive committee—four members—all to be elected annually.

ARTICLE 4—MEMBERS.

Sec. 1.—This association shall consist of active and honorary members.

Sec. 2.—The active members shall consist of principals engaged in the optical business and assistants holding a certificate from any recognized school of optics, who are of good moral character.

Sec. 3.—The honorary members shall consist of those interested in optical science.

ARTICLE 5—AMENDMENTS.

This constitution may be altered or amended with the consent of two-thirds of the members present, provided the proposition be offered in writing at a regular meeting, and acted upon at a subsequent regular session.

BY-LAWS.

ARTICLE 1—DUTIES OF OFFICERS.

Sec. 1.—*Duties of President.*—The president shall preside at all meetings of the association; call special meetings upon request of six active members; appoint all committees not otherwise provided for; act as *ex-officio* member of the executive committee; appoint officers to fill all vacancies for unexpired terms occasioned by death or otherwise; and certify to all official acts of the association.

Sec. 2.—*Duties of Vice-President.*—The first vice-president shall, in the absence of the president, preside at all meetings of the association. In his absence the second vice president shall preside.

Sec. 3.—In case of the absence of the president and the two vice-presidents, a chairman *pro tem.* shall be selected.

Sec. 4.—*Duties of Secretary.*—The secretary shall keep the minutes of all meetings; notify officers and members of their election; give notice to members of all meetings, and certify, in connection with the president, to all official acts of the association.

Sec. 5.—*Duties of Treasurer.*—The treasurer shall keep all monies of the association committed to his trust; disburse them by order of the president. Disbursements to the amount of \$5 in the interests of the association shall be left to his discretion, and to keep a correct account of same in a book provided for that purpose. He shall make a full and detailed report of the financial affairs of the association at the annual meeting, and at the expiration of his term of office shall deliver to his successor all funds, papers, and books relating thereto.

Sec. 6.—*Duties of the Executive Committee.*—The executive committee shall audit the accounts of the treasurer; provide proper places for meetings; have charge of all matters pertaining to legislation; admit applicants to active and honorary membership; and also transact such other business as may be referred to it.

ARTICLE 2—MEMBERSHIP.

Candidates for membership may be proposed upon application to the secretary, which applications shall be in writing and endorsed by two members of the association and accompanied by the initiation fee, when it shall be acted upon by the executive committee. In case of rejection by said committee the fee shall be returned to the applicant.

ARTICLE 3—PRIVILEGES OF MEMBERS.

Sec. 1.—Active members not in arrears shall be entitled to debate and vote on all questions discussed in the association, and shall alone be eligible to any office in its gifts.

Sec. 2.—Honorary members shall be entitled to a seat in meetings of the association, but shall have no vote.

ARTICLE 4—DUTIES OF MEMBERS.

Sec. 1.—To support the honor and dignity of the optical profession, discharge the duties of an optician with integrity, and observe the code of ethics adopted by the association.

Sec. 2.—Every member shall observe order and decorum in the meetings, shall pay due respect to the presiding officer, and no member shall withdraw from a meeting during its session without the special permission of the Chair.

ARTICLE 5—DUES.

The annual dues shall be \$1.00, payable on or before the day of the annual

meeting. Honorary members shall be exempt from all dues and assessments.

ARTICLE 6—COMPLAINTS.

Any member having charges to prefer against a fellow-member shall submit them in writing to the chairman of the executive committee, and a member so charged shall have transmitted to him a written copy of the charge, with notice of the time of hearing. The charge shall be referred to the executive committee, who shall act upon it as they deem fit.

ARTICLE 7—MEETINGS.

Sec. 1.—The annual meeting of this association shall be held in the city of Toronto, or at such other place as the executive committee shall decide upon, the date of which the members will receive due notice from the secretary.

Sec. 2.—Special meetings to be held at the call of the chairman of the executive committee. Seven members shall be necessary to form a quorum at any meeting.

Sec. 3.—The election of officers shall take place at the annual meeting, and such other business as may be brought up for consideration.

ARTICLE 8—ALTERATIONS OR AMENDMENTS.

These by-laws may be altered or amended at any regular meeting by a two-thirds vote of the members present, provided said alterations or amendments shall have been presented at a previous meeting.

Patents Recently Granted of Interest to the Medical Profession.

Edmund D. Martin, New Orleans, La., inhaler, 564628.

John Carnrick, New York City, digestive compound, 565329.

Wm. L. Logsdon, Jeffersonville, Ind., couch for invalids, 565287.

Peter C. Meengs, Coopersville, Mich., rectal irrigating dilator, 565386.

Warren W. Spalding, Waterville, Me., medical compound, 565125.

Henry E. Waite, New York City, electrotherapeutic apparatus, 565056.

Frank R. Bell, Kansas City, Mo., truss, 565592.

John T. Lindahl, Stockholm, Sweden, massage apparatus, 565475.

George W. Moore, Waco, Texas, insufflator, 566212.

Charles Shindler, Toledo, Ohio, capsule filling machine, 566098.

Jackson B. Young, Pasadena, California, invalid and surgical bed, 566114.

James J. Bowker, West Mansfield, Ohio, body rest and bed pan, 566724.

Augustus J. Carpenter, Louisville, Ky., surgical appliance, 566657.

Richard I. Pearson, Kansas City, Mo., truss, 566530.

Cassius M. Richmond, New York City, truss, 566700.

Josef Schoene, Berlin, Germany, powder insufflator, 566411.

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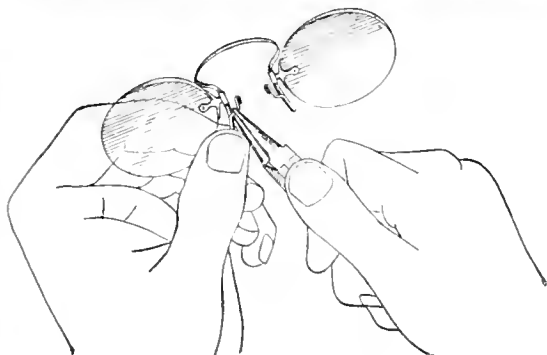
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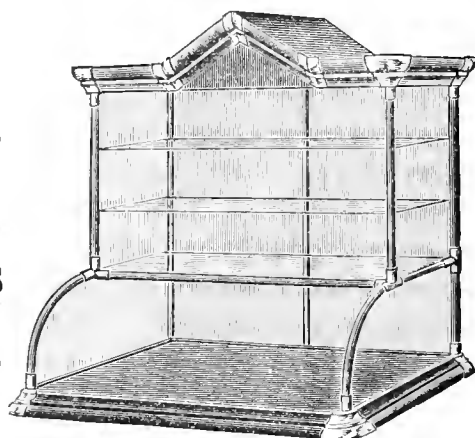
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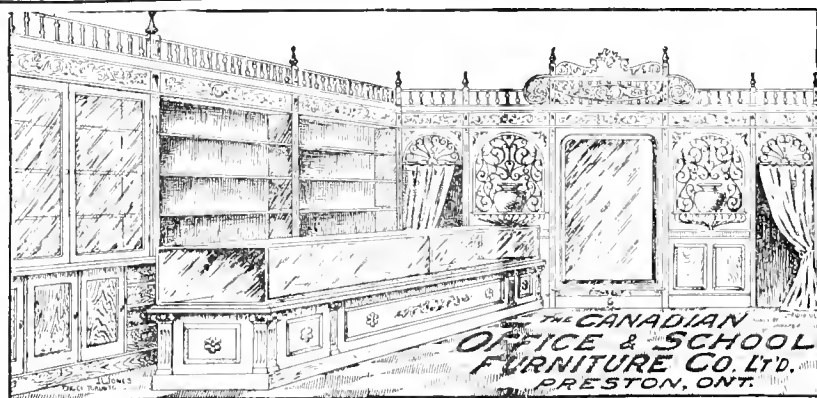


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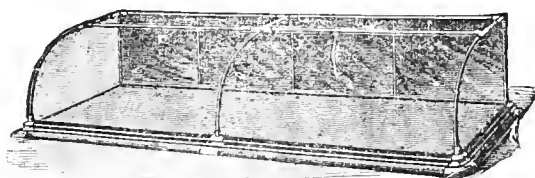
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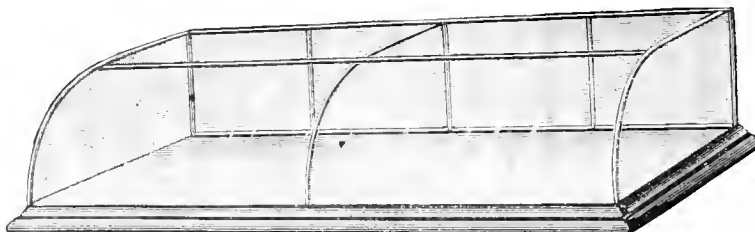
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graphic, and Pyrotechnical purposes.

When Anæsthetics Were First Used in Surgical Operations.

The employment of juice of the poppy, or the mandrake, or other narcotics to diminish sensibility, is very old. Herodotus, fifth century, B.C., tells us that for this purpose the Scythians used the vapor of hemp seed. It is even maintained by some that the early Greek physicians produced hypnotic insensibility before operations. Pliny, who died A.D. 79, says that a decoction of mandragora (mandrake) is taken "before cuttings and puncturings, lest they should be felt." Dioscorides, of Cilicia, a physician of the second century, says, in his book on materia medica, that mandragora "causes insensibility—anæsthesia—in those who are to be cut or cauterised." According to a very ancient Chinese manuscript, the physician Honthrow used to give preparations of hemp before operations to prevent the pain being felt. In medical books of the eleventh and twelfth centuries we read of preparations the smelling or inhaling of which caused insensibility of patients about to be operated upon. The indiscriminate use of anæsthetics by quacks made them fall into disrepute, and their use seems to have almost died out, when Sir Humphrey Davy began to advocate the use of nitrous oxide as an anæsthetic. Little notice was taken of his suggestions, or of other similar ones, for some years. However, in 1844, Dr. Wells, and, in 1846, Dr. Morton, both American dentists, began the use of nitrous oxide and ether in chemistry with great success. In 1846 the practice began to spread in England and on the continent—*Burgoyne's Price Current*.

Rapid and Accurate Method of Assay of Opium for Morphine Contents.

Zooff, in the *Apotheker Zeitung*, recommends the employment of sodic salicylate for the elimination, directly from the infusion, of substances which may falsify the assay for morphine. He operates as follows: Triturate 5 gm. of the opium to be assayed with 5 c.cm. of water and introduce the mixture into a tarred balloon, adding water until a total weight of 44 gm. is obtained. Agitate for fifteen minutes, add 1 gm. of sodic salicylate, agitate anew for two or three minutes, and filter. Take of the filtrate 25 to 80 gm., representing exactly 3 gm. of opium, and agitate it for ten minutes with 3 gm. ether and 1 gm. of ammonia. Pour on a tarred filter. Rinse the balloon with 5 gm. water and with the latter rinse the precipitate on the filter. After drying in an oven, wash the precipitate with benzol, dry and weigh. The result is the morphine content, uncontaminated with any other substance.—*National Druggist*.

The addition of some harmless antiseptic to water used in making poultices will keep them sweet.

Emulsion of Benzine a Superior Cleansing Agent.

A useful and instructive article on this subject is contributed to the *Pharmaceutische Post* by Apothecary Szankay, who claims that the cleansing properties of benzin may be augmented by transforming it into an emulsion. In this work it is necessary to employ only such emulsifying substances as do not attack the cloth, while exerting an emulsifying action on benzin even when added in minimal proportions. The author once had occasion to analyze a specialty which was sold in Hungary under the name of Soap-Milk. Analysis showed that it was merely an emulsion of volatile hydrocarbons; for emulsifying, soap and water in minimal quantities were used. The emulsion was thick, white, permanent, and a far better cleanser than benzin alone. A similar emulsion may be made in accordance with the following formula:

R Benzin 500 gm.
Powdered soap 3 gm.
Distilled water, q. s. to make perfect emulsion.

The soap is dissolved in 50 or 60 grams of lukewarm distilled water, placed in a two litre flask, and shaken. Then add, portion by portion, the previously prepared mixture of benzin, and continue to shake vigorously for a longer period. If half of the benzin has been added by fractions, and on continued shaking there is no perceptible emulsification, the latter can be achieved by immersing the whole bottle in a warm water bath; or, better still, pour 50 to 100 grams of water at a temperature of 60° to 80° C. into the benzin, and shake well a number of times. After the emulsification is complete, add by portions the other half of the benzin and shake well several times.

Three grams of soap is sufficient to emulsify 1000 grams of benzin, and this amount of soap may be reduced if warm water be added, by small quantities, to the finished emulsion; the emulsion becomes thicker, and will now stand a larger quantity of benzin. The author has succeeded in producing an emulsion so rich in hydrocarbons that for 1500 gm. benzin only 3 gm. soap, besides a smaller quantity of water, was needed.

The finished emulsion should be permitted to stand quietly for several days; during this time the water not required by the emulsion separates out and collects at the bottom of the flask.

The author claims that this preparation is a fine cleanser, and has yielded him a nice profit on sales over the counter. It should be marketed in a neat package.—*Bulletin of Pharmacy*.

Eggs in Therapeutics.

According to the *Medical Record*, eggs are useful in the following applications: A mustard plaster made with the white of an egg will not leave a blister. A raw egg, taken immediately, will carry down

a fishbone that cannot be extracted. The white skin that lines the shell is a useful application to a boil. White of egg, beaten up with loaf sugar and lemon, relieves hoarseness, a teaspoonful taken once every hour. An egg in the morning cup of coffee is a good tonic. A raw egg, with the yolk unbroken, in a glass of wine, is beneficial for convalescents.—*Pharmaceutical Journal*.

Chemical Purification of Water.

Pernanganate of lime is advocated for the purification of water, as it is said to split up very readily in the presence of organic matter into oxygen, oxide of manganese and lime, having great oxidizing power and capable of destroying microorganisms. It has the advantage also of being neither poisonous nor caustic. M. Bordas is said to have concluded, from comparative experiments, that permanganate of potash has only a 100th part of the sterilizing power of permanganate of lime.

Where Pumice Stone Comes From.

We often hear it remarked, and particularly after the eruption of a volcano, that pumice stone ought to be plentiful and cheap, as quantities must have been ejected during the volcanic disturbance. As a matter of fact, however, none of the white stone in general use is obtained from active volcanoes. It comes from the deposits of the article discovered in one or two quarters of the globe, the best of which is at present to be found in the Island of Lipari, situated in the Tyrrhenian Sea. The island is mountainous in character, and consists of tuffs and lavas, and of highly siliceous volcanic products. The district where the stone is found is called Campo Bianco or Monte Petalo (1,500 feet above the level of the sea).

After riding a considerable distance, partly along precipitous paths sufficiently dangerous to be interesting, and partly through vineyards and over grassy plains, one almost comes suddenly upon a seemingly snow-clad valley enclosed by hills, also quite white, and the whole gleamingly bright on a sunny day. Into those hills workmen are ceaselessly digging deep burrows, working within by candlelight. In their excavations they come across many lumps of pumice stone, which are placed in baskets, subsequently being conveyed along the valley to the seashore, where small boats are loaded, and sail to the seaport near by, where the stone is sorted, packed, and shipped to distant parts, either *via* Messina or Leghorn.

To remove the deposit of iron from tincture chloride iron bottles, use a saturated solution of oxalic acid, letting the bottle remain for twenty-four hours, when it should be well washed with clean water.

Advertising.

Practical Hints on Advertising.

Copyrighted, 1896, by CHARLES AUSTIN BATES,
New York.

Most of the good things about advertising have been said. I do not expect to give any strikingly original points, but I do expect to give good points—useful ones.

There are some things about advertising that will bear repetition and reiteration. One of them is that the best and most powerful thing to put into a retail ad. is a price. That is really what people want to know. The prices must be right, of course.

A furniture dealer once complained to me that business for the preceding week had been very slow with him, though he couldn't see why. On looking up the papers for that week, I found that, while he advertised "best Lowell ingrain at sixty-three cents a yard, regular price eighty-five cents," his principal competitor said "best Lowell ingrain at fifty-nine cents, regular price seventy-five cents." Now, "best Lowell ingrain" are all alike in quality. Other items showed a like discrepancy, and made about as bad advertising as it was possible to have.

Read competitive ads. as closely, or more closely, than you do your own, and, as the Irishman said at the fair, "When yez see a head, hit it."

Don't be a follower, however. Make the cut price yourself, and make it so low that, if your opponent beats it, he is doing it at a loss. The first cut need not entail an actual loss—the "cut-under" usually does. For all that, I think it is wise to meet or beat the price of your competitor in any case. It is better sometimes to sell certain goods at no profit at all than not to sell them, especially if they represent an increase on the normal sales. The cumulative effect—the good will engendered—will bring the profit later on.

I have seen a statement that where there is not sufficient space to describe in detail the superior quality of a high-priced article, it was better not to advertise the price.

It seems to me that the people who are going to be scared by a high price in an advertisement are not the people who are going to buy high priced goods, anyway, and even if you get them into the store there would likely be a great deal of time wasted on both sides.

On the other hand, there is a class of trade which wants high prices. The higher the prices are, the better they like it. If the goods are only a little bit better than the next best, they are willing to pay a little bit more for them.

There are enough of these people, I think, to make it profitable to advertise high priced goods, and to give the prices. You cannot sell a five-hundred-dollar arti-

cle to a one-hundred-dollar man, anyway, unless you sell it on time, and that might not be profitable.

My attention has been called to a rather peculiar blunder in an advertisement of a firm in Chicago. In one section of their advertisement they announce that they will sell an entire sample line at "one-fourth prices." In several items which follow the prices are given. For instance, "worth up to \$13, at \$8.75; worth up to \$20, at \$12," and so on. In no instance is the reduced price as small as one-fourth of the regular price.

It is a blunder of some kind by somebody, and the reader cannot very well figure out what is meant. It looks merely like a piece of careless prevarication, and if there is anything on earth that requires the most careful kind of care it is prevarication. A man can be pretty careless as long as he is telling the exact truth, but when he starts to exaggerate he ought to keep a good many notes, and watch himself very strictly.

Maybe the firm meant "at one-fourth off." Even that would not be exact, and it would not be plain to a great many people. When you commence to talk about one-fourth off and one-third off, or twenty per cent. off, you will run against a lot of people who will not understand you at all. Percentages and fractions are likely to tangle up even the best of us, and the advertiser cannot afford to use anything that is likely to obscure his meaning. If he is going to sell a \$5 article at one-fourth off, it will be just as easy and a good deal better to say "reduced to \$3.75."

Constructing advertisements is particular work, and a blunder in an advertisement is just as much worse than a blunder in talking over the counter as the circulation of the paper is greater than one. A mistake in an advertisement in a paper of ten thousand circulation is equal to ten thousand separate and distinct mistakes. A misstatement of one item in an advertisement throws doubt and discredit on all the other statements.

The trouble is that a great many business men pay too little attention to the writing of their ads. They put it off until the last minute, do it in a hurry, and are more likely to make mistakes than not. If the business man is writing his own ads., it will pay him to set apart some certain time in each day or each week, as his needs may require, in which to devote his mind wholly to this matter. In that way only can he get the right sort of results.

One of the best things to do in advertising is to make the ad. just as plain as possible. Don't make it at all troublesome for people to find out exactly what you are going to do. You can afford to sacrifice anything else rather than plainness. Make people understand just ex-

actly what kind of goods you have, and how much they are going to cost.

The importance of attracting attention to an advertisement is, I think, greatly overrated. A great many people place this feature of the ad. first, whereas it seems to me it should come last. The first thing to do is to find something good to say, and then say it in a plain, entertaining, convincing way. After that is done, look out for the display.

Luminous Material.

A French scientist, M. Charles Henry, has discovered a chemical combination that absorbs sunlight, which can be conveyed to and used for the illumination of dark chambers. The chief chemical used for this purpose is sulphate of zinc. A fine powder made with the mineral gives a soft luminosity to a fair young face. A lady cyclist, dusted all over with this powder, is in herself a lamp on a pitch-dark night. The luminous pigment is not liable to be spoiled by damp, by carbolic acid, or by any weak acid. It resists rain if united to some strongly adhesive body. There is a house in the Rue de Longchamps, Paris, where a windowless set of rooms is lighted with it. The lady of the house receives there her friends at "five o'clock teas." The apartments seem bathed in moonlight, the curtains are as if studded with glow-worms, the ceiling scintillates, the furniture looks as if rubbed with phosphorus.—*Magazine of Pharmacy.*

The Preservation of Drugs.

F. Miehle gives the following practical points on methods of keeping drugs so as to avoid deterioration. He advises that it is not only necessary to preserve the various juices and liquid preparations in small bottles, but that narcotic extracts, saccharated iron iodide and similar easily decomposable substances should be preserved in well filled air-tight receptacles and kept in a cellar. Very hygroscopic substances, such as monochloroacetic acid, iron bromide, sodium nitrite, zinc iodide, etc., are best preserved in closed vessels over burnt lime in a so-called cold drying closet. This is also recommended as regards the storing of gum resins. Spread plasters containing vegetable substances which easily become mouldy in the cellar should be kept in a dry store room. Saps should be carefully separated in a store room from other stock. The author also recommends that all odoriferous drugs should be kept in tin cans.—*Apoth. Zeit.*

Ispahan, in Persia, produced 390,000 lbs. of opium in 1894, the whole of which went to China. The most esteemed Persian opium comes from the district of Yezd, which yielded 68,900 lbs. in the same year.

A. W. PORTE.

G. R. PARSONS.

COUGH DROPS.

MENTHOL,
GOLDEN, OVAL,
B.F.P.

LICORICE LOZENGES
COATED LICORICE LOZENGES
STICK LICORICE
BREATH PILLS

WINTERGREEN LOZENGES
MUSK LOZENGES
ROSE LOZENGES
MINT LOZENGES



TORONTO BISCUIT AND CONFECTIONERY CO.



—FINE ENGLISH TABLETS—

BLACK CURRANT
HOREHOUND
PINE APPLE
LEMON
RASPBERRY

STRAWBERRY
ACID
LIME FRUIT
BARLEY SUGAR
BUTTER SCOTCH

ROSE AND HONEY
CHOCOLATE
ASSORTED ROCK
MIXED FRUIT

DRUGGISTS' CONFECTIONERY.

ORANGE AND LEMON SLICES.
COCOANUT NIBS.

7 FRONT ST. E.

TORONTO.

JUST PLAIN TOBACCO OF THE HIGHEST GRADE

FLAVOR AND FRAGRANCE UNEQUALLED

FORTIER'S Cigars and Cigarettes

GIVE BEST OF SATISFACTION AND WILL INCREASE YOUR SALES.

We Sell to most Druggists
But we are anxious to Sell to you

WRITE
TO-DAY
FOR
A
SAMPLE
ORDER

Lafayette

Cigars and Cigarettes 5 cents

Creme de la Creme

Cigars and Cigarettes 10 cents

Royal Turkish

Cigarettes 15 cents

Sonadora

Cigars and Cigarettes 15 cents

Creme de la Creme Cigar Co.
MONTREAL.

Genuine Antikamnia Preparations

ANTI-KAMNIA POWDERED.

ANTI-KAMNIA TABLETS,
(1 gr., 2 gr., 3 gr., 5 gr. or 10 gr. each.)
ANTI-KAMNIA and CODEINE TABLETS,
(4 gr. Antikamnia, 1/4 gr. Sulph. Codeine.)
ANTI-KAMNIA and QUININE TABLETS,
(2 1/2 gr. Antikamnia, 2 1/2 gr. Sulph. Quinine.)
ANTI-KAMNIA and SALOL TABLETS,
(2 1/2 gr. Antikamnia, 2 1/2 gr. Salol.)
ANTI-KAMNIA, QUININE and SALOL TABLETS,
(2 gr. Antikamnia, 2 gr. Sulph. Quinine, 1 gr. Salol.)



Without above Monograms None are Genuine.
These preparations are made solely by us and are put up
in 1-oz. packages only.

NEVER IN BULK.

Trade supplied by all jobbing houses in the United States, Canada,
Mexico, South and Central America.

British & Colonial Depot, 46 Holborn Viaduct, London, E. C., Eng.

The Antikamnia Chemical Company,
ST. LOUIS, MO., U. S. A.
Price List on Application.

White Violet

A New & Lasting Perfume
For the HANDKERCHIEF.

John Taylor & Co.
MANUFACTURING
PERFUMERS
TORONTO.

Christmas Perfumes

Before placing your order please inspect our Samples. New styles Leatherette Embossed Boxes, also Fancy Imported Boxes, very suitable for Christmas Gifts.

JOHN TAYLOR & CO.
←Perfumers→
TORONTO.

W.A.GILL & Co. COLUMBUS, OHIO, U.S.A.

BOXES

MAKE THE BEST SEAMLESS TIN

PLAIN, LACQUERED AND DECORATED

• IN THE MARKET •

For sale at Manufacturers' Prices by the leading whole sale druggists and druggists' sundrymen throughout Canada.

Complete Illustrated Price List free on Application

"St. AUGUSTINE"
Registered at Ottawa.

Our "St. Augustine" (Registered) is the perfect wine for communion or invalids. Your wine merchant can supply you at \$4.50 a case, one dozen quarts. See that you get the genuine article. All good articles are counterfeited. See that our name is on label and capsule.

Our "St. Augustine" (Registered), of 1891 vintage, a choice sweet, mild wine, and equal to imported wines at double the price.

J. S. HAMILTON & CO.
BRANTFORD

Sole Agents for Canada for the Pelee Island Wine Company

A Perfect Toilet Gem.

**Areca
Nut
Tooth Paste**

The drug trade of Canada will find this one of the most satisfactory articles on the market. The package is convenient and attractive.

Kindly make sure the ARECA NUT TOOTH PASTE offered you is made in WINNIPEG. The genuine is for sale by

Lyman Bros. & Co., Toronto.
Elliot & Co., Toronto.
Evans & Sons, Montreal.
Lyman, Knox & Co., Montreal.
Lyman, Sons & Co., Montreal.
Kerry, Watson & Co., Montreal.
J. Winer & Co., Hamilton.
J. A. Kennedy & Co., London, and by

THE
MARTIN, BOLE & WYNNE CO.
WINNIPEG.

PRICE LIST



Common Sense Exterminator
FOR ROACHES

25c. each, \$1.75 doz.; 50c. each, \$3.75 doz.; \$1.00 each, \$8.00 doz.

Common Sense Exterminator
FOR RATS AND MICE:

15c. each, \$1.00 doz.; 25c. each, \$1.75 doz.; 50c. each, \$3.50 doz.; \$1.00 each, \$8.00 doz.

Only infallible remedy known. No smell from Dead Vermin. **Not Poisonous** to man or beast. Once used always recommended. Sold by Wholesales at

MONTREAL, TORONTO, and LONDON.

Common Sense Mfg. Co.,
523 King Street West, Toronto.
Manufacturers of Common Sense Stove Polish and Common Sensoline Bicycle Lubricator.

**Ginseng
Root**

We want your Ginseng and will pay highest market values. Write us for quotations.

Bach, Becker & Co.

Dealers and Exporters of Raw Furs and Ginseng
103-107 Michigan St.,
CHICAGO, ILLINOIS

Formulary.

THE BEST FORM OF GLYCERINE JELLY.

Dr. M. Hodara, of Constantinople, after some investigations into the properties of Unna's glycerine jelly for the treatment of eezema, concludes that it should melt at a low temperature, and set at a comparatively high temperature. He gives the following formulae, which fulfil the above requisites:

For a soft jelly, melting point 100° F., setting point 92° F., the following formula is best:

Zinci oxid.	20 parts.
Glycerini.	12.5 "
Gelatina.	12.5 "
Aque.	55 "

If a hard, contractile jelly is required:

Zinci oxid.	25 parts.
Glycerini.	10 "
Gelatina.	15 "
Aque.	50 "

This melts at 102° F., and sets at 87° F.
—*Magazine of Pharmacy.*

WHITE CREAM FOR POLISHING TAN BOOTS.

Sapo communis.	2 dr.
Cera flav.	1 oz.
Potass. carb.	½ dr.
Ol. morrhue.	1 oz.
Ol. verben.	2 m.
Aque.	4 oz.

Dissolve the carbonate potash and soap in the water and add to the previously-melted wax. When mixed add the oils.

—*Chemist and Druggist.*

COLTSFOOT ROCK CANDY.

Purified extract of licorice.	1 pound.
Water.	q. s.
Tragacanth.	2 ozs.
Sugar.	28 pounds.
Spirit of lemon.	1 fl. oz.
Ext. of poppies.	2 fl. ozs.
Spanish brown.	q. s.

Dissolve the licorice in twelve fluid ounces of water and swell the tragacanth in twenty fluid ounces of water. Mix these and add the other ingredients, using a sufficient quantity of Spanish brown to color the candy. Make into a paste. By means of a piston and screw, force through a metal tube having star-shaped holes at the bottom. Cut into lengths and dry.—*Meyer Brothers' Druggist.*

FRECKLE LOTION.

Zinc oxide	1 dram
Calamine.	1 dram
Ammoniated mercury.	15 grains
Glycerin	2 drams
Rose water.	6 ounces

TOOTH POWDER FOR DISCOLORED TEETH.

Powdered potassium chlorate, 14 grammes; powdered borax, calcined magnesia, precipitated chalk, of each 28 grammes; oil of peppermint, 10 drops (*Pharm. Zeit.*)

BLACK INKS FOR RUBBER STAMPS.

The *Bayerische Indust. und Gewerbeblatt* gives the following: For general use:

Tannin, black	1 part
Water.	1 part
Glycerin.	2 parts

Mix.

For textile fabrics the following is recommended:

Nigrosin.	2 parts
Methyl. violet.	4 parts
Water.	5 parts
Wood vinegar.	5 parts
Alcohol	5 parts
Glycerin.	35 parts

Mix and dissolve.

—*National Druggist.*

REMOVAL OF TAN, FRECKLES, ETC.

For the removal of tan or freckles, a preparation described as "Jour d'Été" is made with the following formula:

Sulphur precip.	2 parts
Zinci oxide	1 part
Lanolin	2 parts
Oil amygd.	2 parts

This is perfumed according to taste.—*Magazine of Pharmacy.*

A COD LIVER OIL SUBSTITUTE.

When cod-liver oil is likely to disagree with the patient, which is often the case during the summer months, *The Practitioner* suggests that a very excellent substitute is furnished by the following mixture:

Solution of pot arsenite.	2 drachms
Syrup of the hypophosphites.	3 ounces

One teaspoonful of this is to be taken three times a day after meals. In the treatment of pulmonary tuberculosis this mixture has given good results.

WORM SYRUP FOR CHILDREN.

R Santonin.	4 grains
Liquor senna (sweet).	1 ½ drachms
Glycerin.	1 drachm
Syrup anise.	to make 1 ounce

Rub the santonin to fine powder, mix with glycerin, then add syrup.

This should be provided with a "Shake" label. The dose for a child under one year old is half a drachm; a year old, a drachm; three years old, one and a half drachms; four years old, two drachms; six years old, two and a half drachms; eight years old, three drachms. It should be administered first thing in the morning, fasting.—*Indian Medical Record.*

OPHTHALMIC OINTMENTS.

The *British Journal of Dermatology* gives the following formula, which Dr. Allen Jamieson speaks highly of for preventing the adhesion of the lids during the night:

Lanolin.	3 drachms
Ol. amygdale.	½ drachm
Aqua destill.	½ drachm

For ordinary use it is well to add two grains of boracic acid.

To the same base, other medicaments, as the yellow oxide of mercury, two grains

to the half ounce, may be added. It is found to be cool and unirritating in use.

PHOSPHERGOL.

Phosphergol is the generic name given to a mixture of sodium phosphate and ergot, recommended in general debility. It appears in the following three modifications: The variety intended to be taken as a mixture (in sweetened water) contains

Sodium phos-phate.	1.5 gme. (23 grn.)
Powdered ergot.	1 gme. (15 grn.)

this quantity constituting a daily dose. In the case of phosphergol powder, each dose represents

Dried sodium phosphate and	0.25 gme. (3 ¼ grn.)
Powdered ergot	1 of each;

and this dose is intended to be taken in the morning, on an empty stomach. For pills, the following proportions are used:

Dried sodium phosphate and	2 gme. (31 grn.)
Extract of ergot	1 of each.

Make into twenty pills; two to four to be taken daily.—*Phar. Zeit.*

REMEDY FOR TONSILLITIS.

R Sodii biborat,	1 ½ dr.
Listerine,	2 oz.
Glycerine	2 oz.
Aq. q.s.,	5 ½ oz.

M. Sig. Use as a gargle every two hours.—*Exchange.*

Nutritive Enemata of Cod-Liver Oil.

The following formulae for these preparations for rectal alimentation are given in the *Journal des Practiciens*: No. 1: cod-liver oil, 5 fluid ounces; yolk of one egg; lime water, 10 ounces. Sufficient for four or five enemata, which may be given during the day. No. 2: cod-liver oil, 5 ounces; yolk of one egg; salt, 40 grains; water, 10 ounces. No. 3: cod-liver oil, 1 pint; gum tragacanth, 35 grains; gum acacia, 1 ½ ounces; hypophosphite of calcium, 35 grains; lime water to make 40 fluid ounces. From four to six ounces to be used for each injection.

Oil of Peppermint.

Bukowsky, who has recently been conducting some researches on oil of peppermint, finds that the superior qualities of oil of peppermint give an iodine number (iodine absorbed per cent.) lower than 81 (*Ph. Zeitschr. f. Russland*). The numbers vary between 54.1 and 102.97. In the same oils the volume of liquid boiling from 160 to 220° (the least volatile portions, which consist almost entirely of saturated compounds) varies between 86 and 96 per cent.

Powdered cork is said to be extremely explosive, it have been stated that dynamite in bulk is much safer to handle than ground cork.

Photographic Notes

PREVENTION OF FOG IN THE CAMERA.

—The lens invariably illumines a larger area than that of the plate, so that in addition to the rays passing through it which fall directly on the plate, where they are wanted, a considerable amount of light falls on the bellows and other inferior parts of the camera, where it is only partly absorbed, and that which is reflected helps to create difficulties, the cause of which is frequently unsuspected. A screen of blackened cardboard having a rectangular aperture in it of just sufficient size to allow the plate to be covered by the direct rays from the lens, and placed in the folds of the bellows half way between the lens and the plate, will help towards securing brilliancy. Perhaps a still simpler plan is to make a cardboard cap, to place on the back of the lens, with an opening of the necessary size in it, and this method has also the advantage that it protects the plate from reflections from the edge of the lens and from its mounting.—*Photo-Beacon*.

PHOTOGRAPHIC FLASHLIGHT POWDER.

—At the Antwerp section of the Belgian Photographic Society, it was stated by M. Ommeganck that a satisfactory flashlight powder can be prepared by well rubbing together in a mortar five parts of magnesium dust, three parts of aluminium dust, and one part of red or amorphous phosphorus. This preparation is said to give a more rapid flash than simple magnesium or aluminium dust, whilst free from the danger attending the use of explosive mixtures containing potassium chlorate.—*Amateur Photographer*.

DARK LIGHT.—This is the term employed by a French savant, M. Gustave Le Bon, to denote the photogenic action exerted by the light of a kerosene lamp, an Auer burner, etc., through a sheet of lead, copper, etc., upon a sensitive plate placed under a negative. The results of the first experiments have since been amply confirmed, and in some instances exceeded by other investigators, especially M. Murat, of Havre, who has obtained, by this means, pictures precisely similar to those brought out under the Röntgen rays. Specimens were exhibited at the last meeting of the Paris Académie des Sciences, and the descriptions read like fairy tales. The first showed a skeleton and internal organs of a skate, whose image was impressed by the new process, after being transmitted through a sheet of copper; Fig. 2, the same fish, photographed in the usual way. The most surprising fact in connection with this discovery is that the thickness of the metal or other opaque substance interposed between the light and the negative seems to have no effect upon the success of the photograph.

COLOR SCREENS.—Color screens are now indispensable in advanced photographic work, and F. E. Ives, of Philadelphia (*Photographic Journal*, xx., 315), recently gave a useful practical demonstration of the making and testing of such screens before the Royal Photographic Society. The best method, he thinks, is to coat patent plate-glass with gelatin, and, when the film is dry, immerse the plate in an aqueous solution of the dyestuff until a sufficient quantity is absorbed, then dry again and cement to another piece of patent plate-glass by means of Canada balsam, so as to protect the film from dust and injury. Unless special facilities are available, however, it is easier to prepare the screens with collodion films. The patent plate-glass selected should have plane surfaces as near parallel as possible. This may be "flowed" with plain collodion, then with an alcoholic solution of the dyestuff, drained on blotting-paper, and allowed to dry spontaneously. Or, better, the dyestuff (such as brilliant yellow or "uranine") may be dissolved in the collodion before coating the glass. To make eight ounces of the colored collodion, take four ounces of a clear alcohol solution of the dyestuff and forty grains of "cotton." Shake together until the "cotton" is thoroughly soaked, then add an equal quantity of ether. Coat two pieces of glass with this collodion, and, when dry, cement them face to face with Canada balsam, with the thick edge of one film opposite the thin edge of the other. The effect of this precaution is to keep the depth of color in the screen more uniform. The application over the films, before cementing them together, of a thick varnish made by dissolving mastic in benzol, is useful in preventing punctures by dust or grit. After the excess of balsam has drained out and been cleared off the edges, with paper dipped in methylated spirit, the edges should be bound with strips of gummed paper, as in the case of lantern slides.—*Pharmaceutical Journal*.

History and Names of Rhamnus Purshiana (Cascara Sagrada).

By J. U. LLOYD. Contribution of the Research Committee of the American Pharmaceutical Association.

In a paper contributed to *New Preparations*, October 15, 1877, p. 8, the late Dr. J. H. Bundy, an eclectic physician of Colusa, Cal., recommended cascara sagrada as a valuable remedy in the treatment of constipation. This notice was by means of a brief note that was part of a paper on *Berberis Aquifolium*, Dr. Bundy promising, however, to give it further attention, as follows:

"It is not my purpose to treat on cascara sagrada in this paper; but using it in connection with the berberis, I simply make mention of it. In the future I will introduce this drug to the profession."

This, so far as the writer can determine, was the first reference concerning this

remedy in pharmaceutical or medical print. Agreeably to promise, in January 1878, Dr. Bundy contributed a paper on the subject of cascara sagrada, in which he gave the uses of fluid extract of cascara sagrada. Following this came many papers from Dr. Bundy and other physicians, twenty contributions on the subject being printed in *New Preparations*, 1878, to which journal, with few exceptions, the subject was confined during 1877 and 1878. Dr. Bundy stated in his paper (1878) that: "A description of the cascara I am unable to give at this time; but suffice it to say that it is a shrub, and in due time its botanical name will be known." He neglected, however, to concern himself further in the matter.

In the fall of 1878, Dr. C. H. Adair, of Colusa, Cal., a partner of Dr. Bundy, sent the writer specimens of the bark and botanical specimens of the tree yielding it. These, on identification by Mr. Curtis G. Lloyd, proved to be *Rhamnus purshiana*. This fact was announced in a paper on "Some Specimens of Western Plants," presented at the meeting of the American Pharmaceutical Association held in Atlanta, Ga., November, 1878 (*Proceedings*, 1879, p. 707), and completed the drug's history.

Names.—Dr. Bundy supplied the drug under the Spanish name, cascara sagrada, which name is said to have been in local use throughout some sections of California, and soon came to be the common name of the drug. It will surely dominate all others as long as the drug is in use. The Anglicized name, sacred bark, has also been applied to the drug, and the Scriptural term, *Chittim bark*, was also employed in early days in some parts of California; but these last names are now obsolete.

Summary.—To Dr. J. H. Bundy, Colusa, Cal., 1877, is due the credit of introducing the bark of *Rhamnus purshiana* (cascara sagrada) to the medical profession.

To *New Preparations*, Parke, Davis & Co., of Detroit, Mich. (1877 and 1878), is due the credit of bringing the drug to the attention of physicians and pharmacists.

To Parke, Davis & Co., of Detroit, Mich. (1878), is due the credit of making the first pharmaceutical preparation (the fluid extract), and of bringing this preparation into general conspicuity through their advertisements and business connections. It may be said, without danger of controversy, that this firm introduced and established cascara sagrada as a remedy.

To Dr. C. H. Adair (1878), of Colusa, Cal., is due the credit of furnishing the botanical specimens that established the drug's botanical position.

The use of sodium biborate for the preservation of foods is said to be dangerous, one of the most conspicuous results being the aggravation of kidney disease.

GILLETT'S LYE

Perfumed Powdered

FULL STRENGTH

Is the BEST LYE, and easiest to sell.
Handled everywhere by all
good Druggists.

GILLETT'S CHEMICAL WORKS

(Established 1852)

Chicago, Ill. London, Eng. TORONTO, Ont.

BIRD SEED



Is put up by us in attractive 1 lb.-packages. Each package contains a five-cent cake of "Bird Treat" and piece of cuttle-fish bone.

It is well advertised, and sells readily at 10 cents, leaving retailers large profit.

Sold in 24 lb. and 35 lb. cases by all wholesalers, or

NICHOLSON & BROCK

Colborne Street - Toronto, Ont.

"THE LANCET," "BRITISH MEDICAL JOURNAL," and "THE OPTICIAN" strongly recommend

DENTONS' New Patent "Acme" Lens-Front Clinical Thermometer



STILL MORE EASY TO READ.
INDEX AND SCALE IN THE SAME PLANE.
WILL NOT ROLL.
INDELIBLE ENGRAVING

WHOLESALE ONLY AT

25a Hatton Garden, London, England.

WE KNOW THAT ♦ ♦ ♦ ♦

Baby's Own Soap

Is cut for advertising purposes, but you make a great mistake in not keeping it, as it carries trade with it.



Ox Gall Stain Soap

An attractive package, tin-foil and carton, 1/2 doz in box. A most wonderful preparation for removing stains of paint and grease from carpets, clothes, etc., and restoring their natural color.

The Albert Toilet Soap Co. MAKERS AND SELLERS Montreal.

Wine of the Extract of Cod Liver

Sold by all first-class
Chemists and Druggists

CHEVRIER

General Depot:—PARIS,
21, Faubourg Montmartre, 21

This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis, and all diseases of the Chest.

Wine of the Extract of Cod Liver with Creosote

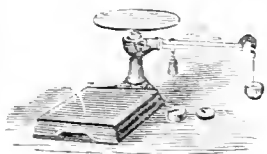
General Depot:—PARIS,
21, Faubourg Montmartre, 21

CHEVRIER

Sold by all first-class
Chemists and Druggists

The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

Druggists Want



Wilson's Scales

Refrigerators

Show Cases

HIGHEST AWARD AT WORLD'S FAIR, CHICAGO.

SPECIAL PRICES THIS MONTH.

C. WILSON & SON,

79 Esplanade Street East, - - - TORONTO.

Drug Paper

In 1/4—made for the special use of druggists. A clean white sheet. Send for samples and prices

THE E. B. Eddy Co. LTD.

HULL MONTREAL TORONTO



THE ALE AND PORTER



OF
John Labatt, London, Ont.

RECEIVED

MEDAL and HIGHEST POINTS

Awarded on this continent at the WORLD'S FAIR, CHICAGO, 1895

MONTREAL—P. L. N. Beaudry, 127 De-
Lorimier Avenue.

TORONTO—J. Good & Co., Yonge Street.
ST. JOHN, N.B.—F. Smith, 24 Water Street.

HERE'S A SELLER SPOONER'S POWDERED PHENYLE

DISINFECTANT, DEODORIZER, and GERMICIDE.

Genuine good article. No Liquid compares with it. Prevents contagious diseases, kills germs. Indispensable with people understanding sanitary requirements. Don't buy any other for safety's sake. All Druggists sell it. Holds Prof. Ellis' certificate.

LYMAN BROS. & CO., Toronto.
ALONZO W. SPOONER, Mr., Port Hope, Ont.

"We believe cutting of prices detrimental
to our interests."

Druggists

Who will sell Manley's Celery Nerve Compound and Indian Woman's Balm at the regular prices are authorized to guarantee the preparation to give satisfaction or refund the money and reclaim same by addressing

The Balm Medicine Co., Ltd.
71 Victoria St., TORONTO

FREE

Send us your name and address, and mention this paper, and we will mail you **FREE** a copy of "Selections from Good Advertising." All we ask is that you send us 10 cents to pay cost of mailing.

"Selections from Good Advertising" is a well-printed book of about 100 pages. It contains 12 chapters taken from Charles Austin Bates' 700-page book "Good Advertising," which sells for \$5.

"Selections from Good Advertising," which we now offer **FREE**, is the same book we have advertised in this paper heretofore for 50 cents.

If your 10 cents gets here after all the books are gone, we will send your money back.

THE HOLMES PUBLISHING CO.,

15 & 17 Beekman St.,

NEW YORK.

JOSEPH E. SEAGRAM

Waterloo, Ontario.

MANUFACTURER OF

ALCOHOL

Pure Spirits

Rye and Malt Whiskies

"OLD TIMES" and "WHITE WHEAT"



THE UNIVERSAL CRANDALL

— NO. 3 —

Just Out

WRITING IN SIGHT.
INTERCHANGEABLE TYPE.
PERMANENT ALIGNMENT.

THE LATEST IMPROVEMENTS!
WHAT MORE CAN YOU ASK?

Write for catalogue.

THE CRANDALL MACHINE CO.
GROTON, N. Y.

CLEANSING HARMLESS **USE**
TEABERRY
25c. FOR THE **TEETH**
ZOPESA CHEMICAL CO. TORONTO.

FOR SALE BY ALL JOBBERS

Awnings

AND

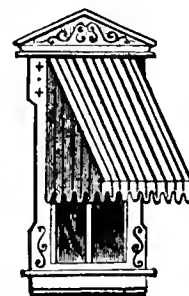
Window Shades

FOR
HOUSES, OFFICES,
AND STORES

Made by experienced workmen,
and of the best materials, at prices
as low as is consistent with good
work and materials.

ESTIMATES FURNISHED

Wm. Bartlett,
16 Adelaide St. West,
TORONTO.



The Alkaloids of Cod-Liver Oil.

The alkaloids of cod-liver oil are stimulants to the appetite, digestion, and process of tissue building, and the fatty matter of cod-liver oil is utterly unfit for food on account of its nauseous taste, tendency to cause eructations and to disorder the stomach. In the alkaloids reside the virtues of the oil, not in the fatty matter. As a food the fatty matter has nothing to recommend it in place of butter and cream, which are far more palatable and digestible.

The reason why a man can sometimes gain a pound a day on an ounce of cod-liver oil, can be found by reading the account of the physiological action of cod-liver oil alkaloids as contained in the paper read before the French Academy of Medicine by MM. Gautier and Morgues, and entitled "Les Alcaloides de L'Hulle de Foie de Morue."

It is due to the presence of the alkaloids which stimulate the appetite, digestion, and tissue building. Appetite causes him to eat a larger quantity of food with relish, digestion is set to work by the alkaloids—not by the fatty matter of the oil; digestion gets the pound for him out of his common food; and the metabolic power of the body stimulated by the alkaloids builds that food into healthy tissue. Therefore, why give the nauseating fatty matter when you can gain the same end in a better way by prescribing Stearns' Wine of Cod Liver Oil. It contains the alkaloids of cod-liver oil—none of its nauseating fatty matter. It is pleasant to take, agrees with the most delicate stomachs, and when given to your patient with his food will aid in its digestion and assimilation, and will "rebuild the body."

—*The New Idea.*

Amongst the Wholesalers.

Pure Powdered Drugs.

There is no line in a druggist's stock that requires more of his particular attention than powdered drugs and chemicals, inasmuch as his own, not the manufacturer's, reputation depends upon the quality of the goods he offers for sale. Messrs. Elliot & Co., Toronto, have from time to time called attention to the noteworthy fact that they have unsurpassed facilities in their mills for grinding and powdering, and that with very few exceptions they grind the raw materials on their premises. Their products have earned for them a most enviable reputation for reliability, and their trade mark (E) is received as a full guarantee for purity by druggists all over this province.

A Choice Exhibit.

On the ground floor of the main building at the recent Industrial Exhibition, held in this city, one of the handsomest exhibits, and which attracted an admiring

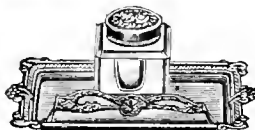
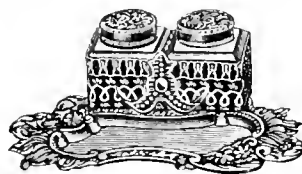
public, was that of John Taylor & Co. The display consisted of two upright show-cases, one filled with a beautiful assortment of their choice perfumes in a variety of styles, together with a perfume fountain, in active operation, dispensing sweet odors to a pleased throng of sight-seers; the other was a similar case filled with an excellent variety of choice toilet soaps. The goods manufactured by this firm have an established reputation, and command the patronage of the trade generally. Read their announcement in this number relating to holiday goods.

Playing Cards.

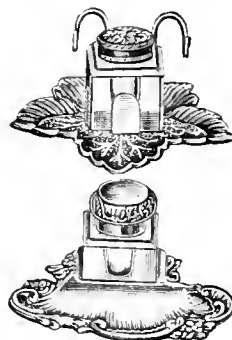
Buntin, Gillies & Co., Hamilton, Ont., are advertising domestic and imported playing cards. They carry in stock all



the leading brands, as well as a full line of the fine cards of the Fireside Game Co., Cincinnati, Ohio. They will be glad to send price lists and other information on application.

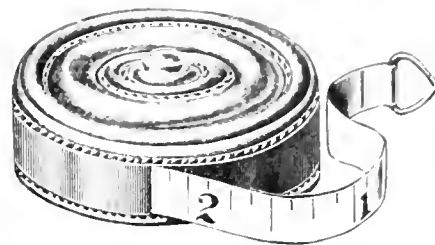


Acting on their past experience, and the great success they met with in selling similar goods last season, Buntin, Gillies & Co., Hamilton, Ont., have laid in a



large and varied stock of white metal and brass-mounted ink stands. These goods are intended to sell at popular prices, twenty-five and fifty cents, and the styles

are such that they should prove rapid sellers. By courtesy of the firm we are able to print cuts of some of the leading lines.



A spring pocket tape measure, to retail at twenty-five cents, is also offered by Buntin, Gillies & Co. It is neat and strong, and should sell well.

Seasonable Specialties.

Judging from the enquiries for fine goods for the holidays, it would seem that there would be a moderate revival of trade this fall. No doubt the long spell of economy has been telling, and there is some money to be spent this winter in such goods.

Messrs. Winer & Co. have been showing some recent importations in these lines, and expect further arrivals this month of atomizers, manicures, mirrors, puff boxes and puff brushes, combs, soaps, perfumes. See lists.

They have a greater variety, and claim to have greater bargains, than ever before.

The Value of Commercial Disinfectants.

The Committee on Disinfectants of the American Public Health Association, in session at the Johns Hopkins University, Baltimore, included Dr. G. M. Sternberg, Surgeon U.S. Army, chairman, Fellow by courtesy in the Johns Hopkins University; John H. Raymond, M.D., Commissioner of Health of the City of Brooklyn, N.Y.; and five other leading physicians from various parts of the United States.

The Public Health Association met in Washington, but the Committee on Disinfectants met in Johns Hopkins, Baltimore. The committee divided itself into two, viz.: Dr. Sternberg and two other physicians, to examine the literature of disinfectants, and to investigate in an exact manner in the laboratory the exact germicidal of the various substances used as disinfectants.

The other sub-committee had to investigate the practical application of such disinfectants as are found efficient, on a large scale, their cost, method of use, effects on furniture, fabrics, etc.

The committee determined first to find the comparative value of the various commercial disinfectants in the market. In the *Medical Times and Gazette*, London, Oct. 11th, 1884, in a paper on the commercial disinfectants exhibited at the London Health Exhibition, we find the following:

"Rampant rides the quack in the field both of preventive and remedial art;

quackery finds a stunk outstinking further stinks, and gives it forth as a disinfectant; of all the substitutes gathered together as disinfectants but few possess any value."

This is true also in America; many substances classed as disinfectants are of no use, at all events as antiseptics or deodorizers. A true disinfectant must not only do this, but must also destroy infectious material. Most kinds of infectious material owe their infecting power to certain living micro-organisms, called "germs"; hence disinfectant and germicide may be looked on as *synonymous*; for a disinfectant which will destroy these "germs" may be called a germicide.

The committee then tested the disinfectants by their ability to destroy these "germs." To do this "broken-down" beef tea was taken, exposed in the laboratory several days. In this are always present the spores of *bacillus subtilis*, which have a great resisting power. To make the experiment doubly sure, a culture of *bacillus anthracis* containing spores is added to this stock solution. An agent that will destroy these will destroy all known disease germs, and probably all organisms of this class, known or unknown. The experiments were most carefully made. The specimens of disinfectants which were tested were obtained not from manufacturers, but were purchased by the committee from druggists and other dealers. By this means it was thought that the disinfectants were obtained such as they are placed on the market.

The following is the list of disinfectants tested:

Name upon Label.	Per cent. in which active.	Per cent. in which failed.
Little's Soluble Phenyle	2	1
Labarraque's Solution, Liq. Sod. Chlor. (name of manufacturer not given)...	7	5
Liq. Zinc Chlor. (Squibb's)	10	7
Feuchtwanger's Disinfectant (Feuchtwanger's, N.Y.)	10	8
Labarraque's Solution (Frere, Paris)...	15	10
Phenol Sodique (Hance Bros. & Co., Phil.)	15	10
Platt's Chlorides (Platt, N.Y.)	20	15
Girardin Disinfectant (Meyer, Jr., N.Y.)	25	15
Williamson's Sanitary Fluid (Williamson, N.Y.)	25	20
Bromo-Chloralum (Bromo-Chlor. Co., N.Y.)	25	20
Blackman's Disinfectant (N.Y.)	30	20
Squibb's Solution of Imp. Carb. Acid (ab. 2, p.c.)	50
Burchard's Disinfectant (Hasby, N.Y.)	...	50
Phenol Sodique 7, Rue Cog., Hirm, Paris)	50

Acidity of Oil.

Acids in lubricating oils may be detected by putting the samples to be tested in a clear glass bottle with a copper wire running down through the cork, air tight. Stand the bottle in a sunny place and leave for two or three weeks. If on removal verdigris or green rust is on the copper, there is an acid in the oil.

Celloidin as a Substitute for Collodion.

Dr. Williamson, in the *British Medical Journal*, advocates the use of a solution of celloidin as a substitute for collodion in dressing cuts, punctures, excoriations, and deep cracks or chaps on the hands

from exposure. It may be used for all the purposes for which collodion is used, the pellicle it forms being more tenacious and durable than that of collodion. The parts to which it is applied should be quite dry. The solution advocated contains—celloidin, 2 part; pure ether, 15 parts; absolute alcohol, 15 parts.

Maxims for Pharmacists.

Prepared by R. S. VITT, Ph.G.

Kindness is the fruit of love.

Be liberal-minded and be successful.

Be prompt in filling your engagements.

Personal experience proves the best teacher. Learn to be self-reliant.

If you are in business, to be successful you must also be careful of your social life.

The basement of every profession or business may be overcrowded, but there is plenty of room upstairs.

Never shirk from doing anything your business calls you to do; remember, what others have done you can do.

Let your aim in study be information. Study systematically. Learn as much as you can, and learn it as well as you can.

Success in life does not depend upon luck. Every man is the builder of his own destiny, and it is written in his own handwriting.

The best achievements come after many failures and disappointments. Failures are the stepping-stones to the success of the world.

All success is possible. Get into a congenial business. Enlist your personal interests. Be honest, energetic, prudent, and determined.

Every person has two educations—one which he receives from others, and the other, more important, which he acquires himself.

Do not try to learn all at once. Lead your mind on easy. Education is not a stuffing process, but a drawing out, a developing of what is in a person.

A young man should not feel that the lack of a college education will stand in the way of his success in the business world. Remember, it is the young man, not the college education—*National Druggist*.

"Surf" Sea Salt

is a new 15c. pkg., put up in 1 doz. 5 lb. pkgs. per case, price, \$1; per gross (12 cases) \$11. Wholesale houses sell it. Pkg. is a new patent cardboard one, and handsomely printed. Sales of first week in Toronto 120 cases. The salt is clear as glass and of a size that dissolves readily. It never gets damp, and contains no dirt or grit. Analyzes 99.98 per cent. pure salt. You can work up a good salt trade if you try. Why not do it?

TORONTO SALT WORKS, Toronto, Importers.



WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc., will be inserted once free of charge. Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.

SITUATIONS WANTED.

WANTED—SITUATION AS DRUGGIST'S ASSISTANT, or manager, by graduate of O.C.P.: 15 years' experience. Also a graduate of the Ontario Optical Institute. Test case and outfit complete. Best of references. Address, M—, 63 Borden St., Toronto.

WANTED—DRUG IMPROVER, WITH NINE months' or a year's experience. Apply at once, giving age and other particulars. State wages desired and how soon open for engagement. Address, Box 99, Paris, Ont.

FOR SALE.

FOR SALE—A WELL-ESTABLISHED DRUG business in Manitoba, splendid location. Stock clean and well assorted. Drugs, Patent Medicines, and Druggists' Sundries; no stationary or other side lines. Good reasons for selling. Address, Jos Taylor, Portage la Prairie, Man.

Southern Asthma Cure

(LIQUID)

CURES ASTHMA, ROSE
COLD, HAY FEVER, Etc.



The Best Remedy for Asthma

Ever Discovered.



Price, \$1 per bottle



JAMES A. KENNEDY & CO.,

WHOLESALE DRUGGISTS

342 Richmond St., - LONDON.

Wholesale Agents for the Dominion.

SEELY**The American Perfumer**

We desire to notify the Trade that our representatives are now showing the Finest line of Holiday Perfumes and Novelties yet shown by them.

Every Druggist in the Dominion will consult his interests by making an effort to see the line.

If our Representatives do not call regularly on you, please notify us and we will arrange to see you.

WE SELL TO THE DRUG TRADE ONLY**SEELY MANUFACTURING COMPANY***Detroit, Mich.**Windsor, Ont.***CANADIAN DRUGGIST PRICES CURRENT**

Corrected to October 10th, 1896.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal.....	\$4 37	\$4 65
Methyl.....	1 90	2 00
ALLSPICE, lb.....	13	15
Powdered, lb.....	15	17
ALON, oz.....	40	45
ANODYNE, Hoffman's bot., lbs.....	50	55
ARROWROOT, Bermuda, lb.....	50	55
St. Vincent, lb.....	15	18
BAL AM, Fir, lb.....	40	45
Copaiba, lb.....	65	75
Peru, lb.....	3 75	4 00
Tolu, can or less, lb.....	95	1 00
BARK, Barberry, lb.....	22	25
Bayberry, lb.....	15	18
Backthorn, lb.....	15	17
Canella, lb.....	15	17
Cascara, Sagrada.....	25	30
Cascarilla, select, lb.....	18	20
Cassia, in mats, lb.....	18	20
Cinchona, red, lb.....	60	65
Powdered, lb.....	65	70
Yellow, lb.....	35	40
Pale, lb.....	40	45
Elm, selected, lb.....	18	20
Ground, lb.....	17	20
Powdered, lb.....	20	28
Hemlock, crushed, lb.....	18	20
Oak, white, crushed lb.....	15	17
Orange peel, bitter, lb.....	15	16
Prickly ash, lb.....	35	40
Sassafras, lb.....	15	16
Soap (quillaya), lb.....	13	15
Wild cherry, lb.....	13	15
BLANS, Calabar, lb.....	45	50
Tonka, lb.....	1 50	2 75
Vanilla, lb.....	8 50	9 00
BERRIES, Cubeb, sifted, lb.....	30	35
powdered, lb.....	35	40
Juniper, lb.....	7	10
Ground, lb.....	12	14
Prickly ash, lb.....	40	45
BUDS, Balm of Gilead, lb.....	55	60
Cassia, lb.....	25	30
BUTTER, Cacao, lb.....	75	80
CAMPHOR, lb.....	65	75
CANTHARIDES, Russian, lb.....	1 40	1 50
Powdered, lb.....	1 50	1 60
CAPRICUM, lb.....	25	30

Powdered, lb.....	\$ 30	35
CARBON, Bisulphide, lb.....	17	18
CARMINE, No. 40, oz.....	40	50
CASTOR, Fibre, lb.....	20 00	20 00
CHALK, French, powdered, lb.....	10	12
Precip., see Calcium, lb.....	10	12
Prepared, lb.....	5	6
CHARCOAL, Animal, powd., lb.....	4	5
Willow, powdered, lb.....	20	25
CLOVE, lb.....	16	17
Powdered, lb.....	17	18
COCHINEAL, S.G., lb.....	40	45
COLLODION, lb.....	75	80
Cantharidal, lb.....	2 50	2 75
CONFECTION, Senna, lb.....	40	45
CREOSOTE, Wood, lb.....	2 00	2 50
CUTTLEFISH BONE, lb.....	25	30
DENTIFRINE, lb.....	10	12
DOVER'S POWDER, lb.....	1 50	1 60
ERGOI, Spanish, lb.....	75	80
Powdered, lb.....	90	1 00
Ergotin, Keith's, oz.....	2 00	2 10
EXTRACT LOGWOOD, bulk, lb.....	13	14
Pounds, lb.....	14	17
FLOWERS, Amica, lb.....	15	20
Calendula, lb.....	55	60
Camomile, Roman, lb.....	25	30
German, lb.....	40	45
Elder, lb.....	20	22
Lavender, lb.....	12	15
Rose, red, French, lb.....	1 60	2 00
Rosemary, lb.....	25	30
Saffron, American, lb.....	65	70
Spanish, Val'a, oz.....	1 00	1 25
GELATINE, Cooper's, lb.....	75	80
French, white, lb.....	35	40
GLYCERINE, lb.....	22	25
GUARANA.....	200	2 25
Powdered, lb.....	2 25	2 50
GUM ALGEE, Cape, lb.....	18	20
Barbadoes, lb.....	30	50
Socotrine, lb.....	65	70
Asafetida, lb.....	40	45
Arabic, 1st, lb.....	70	75
Powdered, lb.....	80	95
Sifted sorts, lb.....	45	50
Sorts, lb.....	30	35
Benzoin, lb.....	50	1 00
Catechu, Black, lb.....	9	20
Gamboge, powdered, lb.....	1 20	1 25
Guaic, lb.....	50	1 00
Powdered, lb.....	90	95
Kino, true, lb.....	2 00	2 25

Myrrh, lb.....	\$ 45	\$ 48
Powdered, lb.....	55	60
Opium, lb.....	4 25	4 50
Powdered, lb.....	5 25	5 50
Scammony, pure Resin, lb.....	12 50	13 00
Shellac, lb.....	40	45
Bleached, lb.....	45	50
Spruce, true, lb.....	30	35
Tragacanth, flake, 1st, lb.....	85	90
Powdered, lb.....	1 10	1 25
Sorts, lb.....	55	70
Thus, lb.....	8	10
HERB, Althea, lb.....	27	35
Bitterwort, lb.....	30	40
Burdock, lb.....	16	18
Boneset, ozs, lb.....	15	17
Catnip, ozs, lb.....	17	20
Chiretta, lb.....	25	30
Coltsfoot, lb.....	20	38
Feverfew, ozs, lb.....	53	55
Grindelia robusta, lb.....	45	50
Horehound, ozs., lb.....	18	20
Jaborandi, lb.....	45	50
Lemon Balm, lb.....	38	40
Liverwort, German, lb.....	38	40
Lobelia, ozs, lb.....	15	20
Motherwort, ozs., lb.....	20	22
Mullein, German, lb.....	17	20
Pennyroyal, ozs., lb.....	18	20
Peppermint, ozs., lb.....	21	22
Rue, ozs., lb.....	30	35
Sage, ozs., lb.....	18	20
Spearmint, lb.....	21	25
Thyme, ozs., lb.....	18	20
Tansy, ozs., lb.....	15	18
Wormwood, oz.....	20	22
Verba Santa, lb.....	38	44
HONEY, lb.....	13	15
Uors, fresh, lb.....	20	25
INDIGO, Madras, lb.....	75	80
INSECT POWDER, lb.....	35	38
ISINGLASS, Brazil, lb.....	2 00	2 10
Russian, true, lb.....	6 00	6 50
LEAF, Aconite, lb.....	25	30
Bay, lb.....	18	20
Belladonna, lb.....	25	30
Buchu, long, lb.....	50	55
Short, lb.....	25	27
Coca, lb.....	35	40
Digitalis, lb.....	15	20
Eucalyptus, lb.....	15	20
Hyoscyamus.....	20	25
Matico, lb.....	70	75

Senna, Alexandria, lb.	\$ 25	\$ 30	Queen of the Meadow, lb.	\$ 18	\$ 20	Valerianate, oz.	\$ 55	\$ 60
Tinneyvelly, lb.	15	25	Rhatany, lb.	20	30	AMYL, Nitrite, oz.	16	18
Stramonium, lb.	20	25	Rhubarb, lb.	75	2 50	ANTINERVIN, oz.	85	00
Uva Ursi, lb.	15	18	Sarsaparilla, Hond, lb.	40	45	ANTIKAMNIA,	1 30	1 35
LEECHES, Swedish, doz.	1 00	1 10	Cut, lb.	50	55	ANTIPIRYN, oz.	1 10	1 20
LICORICE, Solazzi.	45	50	Senega, lb.	55	65	ARISTOL, oz.	1 85	2 00
Pignatelli,	35	40	Squill, lb.	13	15	ARSENIC, Donovan's sol., lb.	25	30
Grasso,	30	35	Stillingia, lb.	22	25	Fowler's sol., lb.	10	13
Y & S—Sticks, 6 to 1 lb., per lb.	27	30	Powdered, lb.	25	27	Iodide, oz.	50	55
“ Purity, 100 sticks in box	75	75	Unicorn, lb.	38	40	White, lb.	6	7
“ Purity, 200 sticks in box	1 50	1 50	Valerian, English, lb. true.	20	25	ATROPINE, Sulp. in $\frac{1}{8}$ ozs. 80c.,	6 00	6 25
“ Acme Pellets, 5 lb. tins	2 00	2 00	Virginia, Snake, lb.	40	45	oz.	35	40
“ Lozenges, 5 lb. tins.	2 00	2 00	Yellow Dock, lb.	15	18	BISMUTH, Ammonia-citrate, oz.	50	55
“ Tar, Licorice, and Tolu,			Essence, lb.	3 00	3 25	Iodide, oz.	20	25
5 lb. tins.	2 00	2 00	SACCHARIN, oz.	1 25	1 50	Salicylate, oz.	1 80	2 00
LUPULIN, oz.	30	35	SEED, Anise, Italian, sifted, lb.	13	15	Subcarbonate, lb.	1 50	1 60
LYCOPodium, lb.	70	80	Star, lb.	35	40	Subnitrate, lb.	7	8
MACE, lb.	1 20	1 25	Burdock, lb.	30	35	BORAX, lb.	8	9
MANNA, lb.	1 60	1 75	Canary, bag or less, lb.	4	5	Powdered, lb.	8	9
Moss, Iceland, lb.	9	10	Caraway, lb.	10	13	BROMINE, oz.	8	13
Irish, lb.	12	13	Cardamom, lb.	1 25	1 50	CADMIUM, Bromide, oz.	20	25
MUSK, Tonquin, oz.	46 00	50 00	Celery,	25	30	Iodide, oz.	45	50
NUTGALLS, lb.	21	25	Colchicum,	50	60	CAFFEINE, oz.	55	60
Powdered, lb.	25	30	Coriander, lb.	10	12	Citrate, oz.	45	50
NUTMEGS, lb.	1 00	1 10	Cumin, lb.	15	20	CALCIUM, Hypophosphite, lo.	1 50	1 60
NUX VOMICA, lb.	10	12	Fennel, lb.	15	17	Iodide, oz.	95	1 00
Powdered, lb.	25	27	Fenugreek, powdered, lb.	7	9	Phosphate, precip., lb.	35	38
OAKUM, lb.	12	15	Flax, cleaned, lb.	3 $\frac{1}{2}$	4	Sulphide, oz.	5	6
OINTMENT, Merc., lb. $\frac{1}{2}$ and $\frac{1}{2}$.	70	75	Ground, lb.	4	5	CERIUM, Oxalate, oz.	10	12
Citrine, lb.	45	50	Hemp, lb.	3 $\frac{1}{2}$	4	CHINCHIDINE, oz.	15	18
PARALDEHYDE, oz.	20	22	Mustard, white, lb.	11	12	CHLORAL, Hydrate, lb.	1 25	1 30
PEPPER, black, lb.	12	13	Powdered, lb.	15	20	Croton, oz.	75	80
Powdered, lb.	15	16	Pumpkin,	25	30	CHLOROFORM, lb.	60	1 90
PITCH, black, lb.	3	4	Quince, lb.	65	70	CINCHONINE, sulphate, oz.	25	30
Bergundy, true, lb.	10	12	Rape, lb.	5	6	CINCHONINE, Sulph., oz.	15	20
PLASTER, Calcined, bbl. cash.	25	3 25	Strophanthus, oz.	50	55	COCAINE, Mur., oz.	5 25	6 25
Adhesive, yd.	12	13	Worm, lb.	22	25	CODEIA, $\frac{1}{2}$ oz.	70	75
Belladonna, lb.	65	70	SEDLITZ MIXTURE, lb.	25	30	COLLODION, lb.	65	70
Galbanum Comp., lb.	80	85	SOAP, Castile, Mottled, pure, lb.	10	12	COPPER, Sulph., (Blue Vitriol) lb.	6	7
Lead, lb.	25	30	White, Conti's, lb.	15	16	Iodide, oz.	65	70
PORTY HEADS, per 100.	1 00	1 10	Powdered, lb.	25	40	COPPERAS, lb.	1	3
ROSIN, Common, lb.	2 $\frac{1}{2}$	3	Green (Sapo Viridis), lb.	25	25	DIURETIN, oz.	1 60	1 65
White, lb.	3 $\frac{1}{2}$	4	SPERMACEIN, lb.	65	70	ETHER, Acetic, lb.	75	80
RESORCIN, white, oz.	25	30	TURPENTINE, Chian, oz.	75	80	Sulphuric, lb.	40	50
ROCHELLE SALT, lb.	28	30	Venice, lb.	10	12	EXALGINE, oz.	1 00	1 10
ROOT, Aconite, lb.	22	25	WAX, White, lb.	50	75	HYOSCYAMINE, Sulp., crystals, gr.	25	30
Althea, cut, lb.	30	35	Yellow,	40	45	IODINE, lb.	4 75	5 50
Belladonna, lb.	25	30	WOOD, Guaiac, rasped.	5	6	IOFORM, lb.	6 00	7 00
Blood, lb.	15	16	Quassia chips, lb.	10	12	IODOL, oz.	1 40	1 50
Bitter, lb.	27	30	Red Saunders, ground, lb.	5	6	IRON, by Hydrogen,	80	85
Blackberry, lb.	15	18	Santal, ground, lb.	5	6	Carbonate, Precip., lb.	15	16
Burdock, crushed, lb.	18	20				Sacch., lb.	30	35
Calamus, sliced, white, lb.	20	25				Chloride, lb.	45	55
Canada Snake, lb.	30	35				Sol., lb.	13	16
Cohosh, black, lb.	15	20				Citrate, U.S.P., lb.	90	1 00
Colchicum, lb.	40	45				And Ammon., lb.	70	75
Columbo, lb.	20	22				And Quinine, lb.	1 50	3 00
Powdered, lb.	25	30				Quin. and Stry., oz.	18	30
Coltsfoot, lb.	38	40				And Strychnine, oz.	13	15
Comfrey, crushed, lb.	20	25				Dialyzed, Solution, lb.	50	55
Curcuma, powdered, lb.	13	14				Ferrocyanide, lb.	55	60
Dandelion, lb.	15	18				Hypophosphites, oz.	25	30
Elecampane, lb.	15	20				Iodide, oz.	40	45
Galangal, lb.	15	18				Syrup, lb.	40	45
Gelsemium, lb.	22	25				Lactate, oz.	5	6
Gentian or Genitan, lb.	10	11				Permanganate, solution, lb.	15	16
Ground, lb.	11	12				Phosphate scales, lb.	1 25	1 30
Powdered, lb.	13	15				Sulphate, pure, lb.	7	9
Ginger, African, lb.	18	20				Exsiccated, lb.	8	10
Jo., lb.	20	22				And Potass. Tartrate, lb.	80	85
Jamaica, blechd., lb.	27	30				And Ammon Tartrate, lb.	80	85
Jo., lb.	30	35				LEAD, Acetate, white, lb.	13	15
Ginseng, lb.	4 50	4 75				Carbonate, lb.	7	8
Golden Seal, lb.	75	80				Iodide, oz.	35	40
Gold Thread, lb.	90	95				Red, lb.	7	9
Hellebore, white, powd., lb.	12	15				LIME, Chlorinated, bulk, lb.	4	5
Indian Hemp,	18	20				In packages, lb.	6	7
Ipecac, lb.	1 75	2 00				LITHIUM, Bromide, oz.	30	35
Powdered, lb.	2 00	2 25				Carbonate, oz.	30	35
Jalap, lb.	55	60				Citrate, oz.	25	30
Powdered, lb.	60	65				Iodide, oz.	50	55
Kava Kava, lb.	40	90				Salicylate, oz.	35	40
Licorice, lb.	12	15				MAGNESIUM, Calc., lb.	55	60
Powdered, lb.	13	15				Carbonate, lb.	18	20
Mandrake, lb.	13	18				Citrate, gran., lb.	35	40
Masterwort, lb.	16	40				Sulph. (Epsom salt), lb.	13 $\frac{1}{2}$	14
Orris, Florentine, lb.	30	35				MANGANESE, Black Oxide, lb.	5	6
Powdered, lb.	40	45				MENTHOL, oz.	55	60
Pareira Brava, true, lb.	40	45				MERCURY, lb.	75	80
Pink, lb.	40	45				Ammon (White Precip.)	1 25	1 30
Parsley, lb.	30	35				Chloride, Corrosive, lb.	85	90
Pleurisy, lb.	20	25				Calomel, lb.	1 00	1 10
Poke, lb.	15	18				With Chalk, lb.	60	6

Books

THE STANDARD DICTIONARY.

It is a Peerless Production—The English Language Embodied in a Book of Beauty that is Invaluable.

The work is gigantic in conception and its conclusion realizes the fondest anticipations of its projectors. Almost \$1,000,000 was spent before it was published and its contents are the result of the critical labors of 217 specialists.

Mechanically the book is a work of art. The typographical dress is clean and pure and commendable in every way. But when we come to speak of what may justly be called the incomparable character of its vocabulary, we are at a loss to find words sufficient to characterize the excellence of the production.

Its Wealth of Words.

The Standard contains 301,896 words. Among them thousands of words found in no other dictionary extant. The grouping of related terms and words is convenient in arrangement. The spelling and pronunciation have been the careful study of the best and latest authorities in the world. There are about 5,000 illustrations which are marvels of lithographic beauty. Tables of coins, measures, weights, etc., quotations, the systematic condensation and collocation of synonyms and antonyms, the exact, clear-cut and terse definition of every word known to the English language—all this is the *ne plus ultra* of 19th century scholarship. While the book is

The Epitome of the Ripest Learning of our Day,

and contains information upon almost every conceivable subject, yet this is so condensed and plain and accurate as to be easily and quickly apprehended. It is authentic in every department of knowledge, and contains a fund of useful information never before submitted to the public in the form of a popular dictionary.

It cannot fail to commend itself as the most important and useful product of the intellectual genius and the literary life of the times. It is delightful to the eye, instructive to the mind, and an invaluable hand-book for all professions and avocations, for rich and poor, learned and ignorant. Close criticism of the work justifies the warmest praise of it.

A MANUAL OF MATERIA MEDICA AND PHARMACOLOGY.—Comprising all organic and inorganic drugs which are and have been official in the United States Pharmacopœia, together with important allied species and useful synthetics. For students of medicine, druggists, pharmacists, and physicians. By David M. R. Culbreth, M.D., Professor of Botany, Materia Medica, and Pharmacognosy in the Maryland College of Pharmacy, Baltimore. In one handsome octavo volume of 812 pages, with 445 illustrations. Cloth, \$4.75. Lea Brothers & Co., Publishers, Philadelphia and New York, 1896.

With the numbers of text-books already published on these subjects, one is apt to exclaim "What can be said that does not already appear in similar works now in

use?" To this the author in his preface gives an answer. "If there were not a missing link, or had there been at command a single book on this subject thoroughly adapted, according to the author's opinion, to modern class instruction in colleges of pharmacy, this one would never have been undertaken and completed." We are told that the conception of the book emanated from the drug store, where the need of such a compend had made itself apparent during the past twenty years; this, together with the additional duties of a teacher during the past ten years, has promoted its ultimate materialization.

The text of the work embraces :

(1) All official drugs, organic and inorganic, included in the U.S. Pharmacopœia, together with their preparations, official and non-official.

(2) All drugs once official in previous editions of the Pharmacopœia, but now dropped.

(3) Allied species of organic drugs.

(4) Important unofficial synthetic compounds.

In arrangement, the principle has been adopted of associating as nearly as possible those substances, organic and inorganic, which have a common or allied origin; these are classified by giving first the basal source, the rest following in regular sequence.

Other important features of the work are the etymology and pronunciation of the generic, specific, and ordinal names; recapitulation tables, consisting of a summary of the official drugs; a treatise on the microscope; also several tables, dose lists, etc.

The work is certainly in advance of any book heretofore published as a text-book on these subjects, and is admirably adapted, especially, for students of pharmacy.

The printing is also excellent, the illustrations far ahead of similar works in clearness and preciseness of execution, and the whole appearance of the book reflects credit on the publishers, Messrs. Lea Brothers & Co., Philadelphia.

THE EMINENTLY SCIENTIFIC NATURE OF OUR PATENT AND COPYRIGHT LAWS.—Being an address delivered before the American Medical Association by F. E. Stewart, M.D., Ph.G., Detroit. This pamphlet deals carefully and conclusively with the patent laws of the United States, particularly as affecting medicinal preparations.

Magazines.

Ignace Paderewski has written a new minuet for the piano which he has dedicated to his American admirers and given the significant name of "Menuet Moderne." He regards the new composition as his best, and believes that it will meet with greater popular favor than his "Menuet à L'Antique," written in 1883, of which over seven million copies were sold in a single year. It is the first minuet written by Paderewski since

"L'Antique," and was composed by the famous pianist expressly for *The Ladies' Home Journal*, and appears in the October issue.

The frontispiece of the October *Review of Reviews* is a portrait of Sir Joseph Lister, the eminent British surgeon, whose discovery of the value of antiseptics has so revolutionized modern surgical methods, and who was honored, last year, by election to the presidency of the British Association for the Advancement of Science. Another interesting picture in the October *Review* is a photograph of Mr. Gladstone and Li Hung Chang.

The leading article in *Current History* is a review of the presidential campaign of 1896, containing a wealth of interesting and timely information, arguments for and against the positions taken by the various parties. There are 260 pages of reading matter and 68 portraits. Among the hundreds of other topics fully treated are: Venezuelan Question; Cuban Revolt; South African Situation; Campaigns in Abyssinia and Soudan; Armenian Question; Revolt in Crete; Situation in the Far East; Congressional proceedings in full; General Elections in Canada; British Politics; Labor Movements; Hungarian Millennium Celebration; Coronation of the Czar; Revived Olympic Games; Progress of Science, including production of Light without Heat, Electricity directly from Carbon, latest about X rays, etc.; Religious conventions; Book review; full Obituaries of prominent men, etc., etc.

Buffalo, N.Y.: Garretson, Cox & Co., publishers; Alfred S. Johnson, editor; \$1.50 a year; 40 cents a number.

The Indian Pharmacologist is one of the latest additions to pharmaceutical journalism. It is edited and published at Calcutta, by Dr. Lawrence Fernandez. The first two numbers have been received, and contain articles original and selected.

So many good things are given in the October number of *Frank Leslie's Popular Monthly* that it is impossible, in our limited space, to describe them all. The principal features, all splendidly illustrated, are: "The Road to the Stage," in which Arthur Hornblow tells how actors and actresses are made, and something about the dramatic schools; "General Lee's Last Campaign," by General Horatio C. King; the opening chapters of a new serial story, "Father John," by Edith Sessions Tupper; "The United States Revenue Cutter Service," giving the history and duties of an important branch of our navy, by Joanna R. Nicholls; "The Free Silver Issue," by Senator William M. Stewart; "The Art Student in Munich," by George Willis Bardwell; an account of a visit to the old Italian city of Perugia; and "The Microscope as an Amusement," by William G. Bowdoin. Then there are four short stories, some illustrated poems, an attractive Young Folks' Department, Talks About the New Books, etc.—*Frank Leslie's Publishing House*.

Iodide, Proto, oz.....	\$ 35	\$ 40	Iodide, oz.....	\$ 40	\$ 43	Geranium, oz.....	\$1 75	\$1 80
Bin., oz.....	25	30	Salicylate, lb.....	1 00	1 10	Rose, lb.....	3 20	3 50
Oxide, Red, lb.....	1 15	1 20	Sulphate, lb.....	2	5	Juniper berries (English), lb...	4 50	5 00
Pill (Blue Mass), lb.....	70	75	Sulphite, lb.....	8	10	Wood, lb.....	70	75
MILK SUGAR, powdered, lb....	30	35	SOMNAL, oz.....	85	00	Lavender, Chiris. Fleur, lb....	3 00	3 50
MORPHINE, Acetate, oz.....	1 90	1 95	SPIRIT NITRE, lb.....	35	65	Garden, lb.....	1 50	1 75
Muriate, oz.....	1 90	1 95	STRONTIUM, Nitrate, lb.....	18	20	Lemon, lb.....	1 90	2 00
Sulphate, oz.....	2 00	2 10	STRYCHNINE, crystals, oz.....	80	85	Lemongrass, lb.....	1 50	1 60
PEPSIN, Saccharated, oz.....	35	40	SULFONAL, oz.....	40	42	Mustard, Essential, oz.....	60	65
PIRENACETINE, oz.....	40	42	SULPHUR, Flowers of, lb.....	2 1/2	4	Neroli, oz.....	4 25	4 50
PILOCARPINE, Muriate, grain...	35	38	Pure precipitated, lb.....	13	20	Orange, lb.....	2 75	3 00
PIPERIN, oz.....	1 00	1 10	TARTAR EMETIC, lb.....	50	55	Sweet, lb.....	2 75	3 00
PHOSPHORUS, lb.....	90	1 10	THYMOL (Thymic acid), oz.....	55	60	Origanum, lb.....	65	70
POTASSA, Caustic, white, lb....	60	65	VERATRINE, oz.....	2 00	2 10	Patchouli, oz.....	80	85
POTASSIUM, Acetate, lb.....	35	40	ZINC, Acetate, lb.....	70	75	Pennyroyal, lb.....	2 50	2 75
Bicarbonate, lb.....	15	17	Carbonate lb.....	25	30	Peppermint, lb.....	3 00	3 25
Bichromate, lb.....	14	15	Chloride, granular, oz.....	13	15	Pimento, lb.....	2 60	2 75
Bitrat (Cream Tart.), lb.....	29	30	Iodide, oz.....	60	65	Rhodium, oz.....	80	85
Bromide, lb.....	65	70	Oxide, lb.....	13	60	Rose, oz.....	7 50	11 00
Carbonate, lb.....	12	13	Sulphate, lb.....	9	11	Rosemary, lb.....	70	75
Chlorate, Eng., lb.....	18	20	Valerianate, oz.....	25	30	Rue, oz.....	25	30
Powdered, lb.....	20	22	ESSENTIAL OILS.			Sandalwood, lb.....	5 50	7 50
Citrate, lb.....	70	75	Oil, Almond, bitter, oz.....	75	80	Sassafras, lb.....	75	80
Cyanide, lb.....	40	50	Sweet, lb.....	40	50	Savin, lb.....	1 60	1 75
Hypophosphites, oz.....	10	12	Amber, crude, lb.....	40	45	Spearmint, lb.....	3 75	4 00
Iodide, lb.....	4 00	4 10	Rec't, lb.....	60	65	Spruce, lb.....	65	70
Nitrate, gran, lb.....	8	10	Anise, lb.....	3 75	3 90	Tansy, lb.....	4 25	4 50
Permanganate, lb.....	40	45	Bay, oz.....	50	60	Thyme, white, lb.....	1 80	1 90
Prussiate, Red, lb.....	50	55	Bergamot, lb.....	3 75	4 00	Wintergreen, lb.....	2 75	3 00
Yellow, lb.....	32	35	Cade, lb.....	90	1 00	Wormseed, lb.....	3 50	3 75
And Sod. Tartrate, lb.....	25	30	Cajuput, lb.....	1 00	1 70	Wormwood, lb.....	4 25	4 50
Sulphuret, lb.....	25	30	Capsicum, oz.....	60	65	FIXED OILS.		
PHOSPHYLAMINE, oz.....	35	46	Caraway, lb.....	2 75	3 00	CASTOR, lb.....	10	12
QUININE, Sulph, bulk.....	34	37	Cassia, lb.....	3 30	3 50	COD LIVER, N.F., gal.....	2 25	2 30
Ozs., oz.....	37	41	Cedar.....	55	85	Norwegian, gal.....	3 00	3 25
QUINIDINE, Sulphate, ozs., oz...	16	20	Cinnamon, Ceylon, oz.....	2 75	3 00	COTTONSEED, gal.....	1 10	1 20
SALICIN, lb.....	75	4 00	Citronella, lb.....	80	85	LARD, gal.....	90	1 00
SANTONIN, oz.....	20	22	Clove, lb.....	1 10	1 20	LINSEED, boiled, gal.....	56	59
SILVER, Nitrate, cryst, oz.....	90	1 00	Copaiba, lb.....	1 75	2 00	Raw, gal.....	55	58
Fused, oz.....	1 00	1 10	Croton, lb.....	1 50	1 75	NEATSFOOT, gal.....	1 20	1 30
SODIUM, Acetate, lb.....	30	35	Cubeb, lb.....	2 50	3 00	OLIVE, gal.....	1 20	1 25
Bicarbonate, kgs., lb.....	2 75	3 00	Cumin, lb.....	5 50	6 00	Salad, gal.....	2 50	2 60
Bromide, lb.....	65	70	Erigeron, oz.....	20	25	PALM, lb.....	12	13
Carbonate, lb.....	3	6	Eucalyptus, lb.....	1 50	1 75	SPERM, gal.....	1 35	1 40
Hypophosphite, oz.....	10	12	Fennel, lb.....	1 60	1 75	TURPENTINE, gal.....	60	65
Hyposulphite, lb.....	3	6						

Drug Reports.

Canada.

Business during the past month has brightened up considerably, and nearly every line of business is improving.

Morphia and opium are higher in price. Camphor is firm in price.

Norway cod-liver oil is very high, and likely to continue so, as the crop is small. Newfoundland oil is consequently in good demand.

Quinine is unchanged; likely to advance.

Mercurials are easier, although quicksilver is higher in England.

Balsam tolu, still higher.

Asceptoline—Edson's advanced, as customs have ruled it shall pay fifty per cent. duty.

Ginger roots advanced.

Castor oil, E. I., much higher.

Patent salad oil lower.

Seniga root has advanced.

Linseed oil remains firm.

Turpentine, somewhat higher.

Tea is now quoted in the English drug journals, as druggists are handling package teas quite largely.

Seigel's syrup—The price of this article has again been advanced by the manufacturers. Evidently the owners think if retailers do not want any profit (as in

many instances it is retailed about cost) they, the owners, might as well have it.

England.

London, Sept. 28th, 1896.

The fall in quinine and its subsequent recovery have been the events of the month. A combination is threatened in sulphur. Balsam of copaiba is still dear, and Peru is scarce. English oil of peppermint is easier. The price of otto is not yet settled, although Kexanlik houses are offering at lower prices. Goa powder, still impure, is coming forward more freely; so prices are lower, and chrysarobin is offered at slightly easier rates. Glycerine is not quite so firm, owing to less demand. Cod-liver oil, very quiet. Oil of aniseed is dearer, and higher prices are still expected. Oil of eucalyptus is firmer for good brands. Podophyllin is dearer owing to scarcity of the rhizome. Shellac is considerably firmer. Opium, unchanged and quiet.

Pictet claims he can age brandy artificially by merely exposing it for twenty-four hours to a temperature of 80° C. The liquor is to all intents and purposes as good as if it had been stored thirty years.

Man carries an atmospheric pressure of fifteen tons. Some men have more gas than this, but this is the average.



OUR PRINTING



Is artistic

OUR BINDING



Is handsome and durable

OUR CHARGES



Are moderate

We would like to have your patronage . . .

 **The Bryant Press,** 
Toronto.

Printers of THE CANADIAN DRUGGIST.



Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VIII.

TORONTO, NOVEMBER, 1896.

NO. 11

"APENTA" THE BEST NATURAL APERIENT WATER.

Bottled at the **UJ HUNYADI**
SPRINGS, Buda Pest, Hungary.

*Under the absolute control of the Royal
Hungarian Chemical Institute (Ministry of
Agriculture), Buda Pest.*

"APENTA" THE BEST NATURAL APERIENT WATER.

"We know of no stronger or more
favourably-constituted Natural Aperient
Water than that yielded by the Uj Hunyadi
Springs."

L. Lieberman

*Royal Councillor, M.D., Professor of Chemistry,
and Director of the Royal Hungarian State
Chemical Institute (Ministry of Agriculture),
Buda Pest.*

"APENTA" THE BEST NATURAL APERIENT WATER.

By instructions from the Apollinaris Company,
Limited, now offered to the Trade at

\$5.50 per case of 25 large glass bottles.
\$8.00 " 50 small " "
\$8.00 " 100 glass quarter "

SHOULD THE PRICE OF

"APENTA"

be reduced, we guarantee to allow such reduction
to our Buyers on their unsold stock, and as far as
possible, to secure a corresponding reduction to
Retailers upon their unsold stock.

SOLE EXPORTERS:

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LONDON.

CANADIAN SUB-AGENTS:

WALTER R. WONHAM & SONS,
Montreal.

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

Subscription \$1 per year in advance

Advertising rates on application.

The CANADIAN DRUGGIST is issued on the 15th of each
month, and all matter for insertion should reach us by the
5th of the month.

New advertisements or changes to be addressed

Canadian Druggist,

111 1/2 RICHMOND ST. WEST,
TORONTO, ONT.

EUROPEAN AGENCIES:

London, England: 145 Fleet Street, E.C.

Paris, France: 18 Rue de la Grange Bateliere.

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DRUG REPORTS.

A Questionable Policy.

Only a short time ago, a city druggist,
in the course of conversation, said: "The
physicians do not treat us fairly; we keep
everything they want, we are always here
to wait on them, and they know our capa-
bility for dispensing, but they do not send
us the prescriptions that they should."

This is the complaint of a large num-
ber of retail druggists, and there is a good
deal of foundation for it. However, there
is generally some reason attributed for the
want of harmony or business relationship
which exists between the doctor and drug-
gist, and we think the blame can justly,
in many cases at least, be placed on the
druggist.

It must be acknowledged that it is to
the interest of the retail druggist that he
should secure the good will at least, if
he cannot always the patronage, of as
many physicians as possible who could in
any way influence business on his be-
half; yet how frequently do we see the
druggist acting directly in opposition
to the interest of the physician.

A case in point might be men-
tioned. Munyon's Homeopathic Reme-
dies have been introduced into Canada
with a conspicuous display of advertising
in the daily press, and agencies have been
opened in Toronto and Montreal where
the "Doctor" prescribes these remedies for
individual patients. Having created a
demand for these goods, they proceeded
to stock up the retail drug trade with
them, and, not content with selling them
an assortment, they ask them to display
a large sign over their door or windows
proclaiming to the public that they are
agents for Munyon's Homeopathic Re-
medies. Has the druggist reflected that,
by allowing his store to be made conspi-
cuous as a depot for these goods, he is
antagonizing a class who are worth more
to him than any patent medicine dealer,
who may be here to-day and away to-
morrow? Does it occur to him that he
is allowing himself to be made a "sand-

wich-man," only for the benefit of a patent medicine manufacturer. Does he consider the sale of a few dozen of these remedies a sufficient off-set to the loss he may sustain by the estrangement of a physician who, quite naturally, does not want these brought so prominently before his patients?

We believe that if the druggist will reflect a little on these questions he will see how foolish it is for him to do anything which will destroy the confidence and business relationship which should exist between the physician and himself.

There is no objection whatever to keeping these, or any similar remedies, in stock. They are legitimate goods, and have for the present at least a demand which the druggist should be prepared to supply, but we do think it a very short-sighted policy to allow any drug store to be made the advertising medium of any concern, especially when it must inevitably be the means of lessening the prescription trade and any other indirect business which may come from the physician. The public can buy all the Munyon's Remedies they want at their retail depots, and they are advertised by the departmental stores at cut prices. Why, then, act as an advertising agent for them to your own hurt? Would it not be wiser to treat them as all others, to be sold when asked for, but not pushed offensively forward?

The Progressive Druggist.

How many druggists engaged in business devote a portion of their time to the study of pharmacy? Very few; in fact, we believe it is one of the tendencies of the times to abandon study just as soon as the college course is completed and the necessary "parchment" is obtained to entitle its holder to the designation of "chemist and druggist." There can be no greater mistake than this. Possibly no one branch of science is making more rapid strides than those of pharmacy and chemistry, and what we learn to-day has to be supplemented to-morrow by the results of research in these branches. The "progressive" pharmacist must thus be a man who is continually posted on whatever is transpiring in the pharmaceutical world, and to neglect this study or to overlook the results of the work of eminent men in these branches leaves the pharmacist in ignorance of what is most desirable for him to know. The pharmacist should be the helpmeet for

the physician, he should be able to place before him whatever is new and reliable, and to show himself so thoroughly acquainted with what is constantly happening in pharmacy as to gain and hold the confidence of the medical man.

Also with the general public. It does not take long for a discerning public to find out what kind of a man they are dealing with, and whether he is a master of his profession and thoroughly to be relied upon.

The numbers of technical books appearing from time to time furnish the material for a good deal of study and research, but it is mainly from the columns of the various pharmaceutical publications that the everyday druggist will glean somewhat at least of what is happening in his own special sphere, as it is in these, as a rule, that everything new and important in these subjects is first published.

No practical druggist should neglect to improve what knowledge he already possesses, and any such knowledge and time spent in the attainment of it will be amply repaid by the additional advantages it secures for him.

Antagonism Rampant.

We trust the druggists of the province hold more charitable views of our editorial motives than is held by our friends of *The Canadian Pharmaceutical Journal*. When we see fit to refer to the Ontario Society of Retail Druggists our remarks are picked up and reclothed so as to make them vindictively aspersive of the work of the society. We do not feel that way, and we deny the right of our contemporary to make it appear that we do. We are surely as privileged to use our columns discussing the affairs of the druggists of the provinces and their interests as is *The Canadian Pharmaceutical Journal*, which is usually filled with matters of this kind. We are not accustomed to bandying words with a writer who stoops so low as to insert billingsgate by dashes. Our personal opinion of the writer who wrote the article, "When Prices will Advance," has been always too elevated to admit of any thought that he would so far forget himself as to place such a blot on his editorial pages. We pass it over this time by expressing the hope that the error was one of hasty indiscretion rather than one of due deliberation. We have not time or space to devote to journalistic wrangling. Our readers do not want it, and we do not

want to give it to them if we can avoid it. We did not ask *The Canadian Pharmaceutical Journal* to answer the inquiries of our correspondents. We understand that a very efficient secretary such as the society possesses should be in a position to give an official answer, and we do not doubt he is aware that our columns are ever open for such communications. If answers are to be made through *The Canadian Pharmaceutical Journal*, then we would like to see the signature attached of the officer of the society answering them. Until our contemporary announces itself definitely as the recognized organ of "The Ontario Society of Retail Druggists" we think they will surely pardon us for ignoring them as the official mouth-piece.

We trust our editorial friend will allow himself to cool off next time before attempting to write us up, and we are confident he will have much less difficulty in maintaining his true position.

Of Value to all Druggists.

We believe we are only uttering an acknowledged fact when we say that the life of business is in advertising. There was a time when the merchant, manufacturer, or jobber could afford to do without this means of publicity, but in the existing conditions of business and keen competition the man who desires the patronage of the public must keep himself prominently before them. As the matter of advertising does not enter into the curriculum of our colleges of pharmacy, many druggists are at a loss at times how best to bring themselves and their business into public notice, and in order to assist them in this matter we are publishing each month a series of articles on advertising, written specially for this journal by Charles Austin Bates, one of the leading authorities in America on the subject of advertisement, writing and advertising in general.

We would advise all our readers to peruse these articles carefully; they are of great interest, and must prove of special value to the wide-awake druggist. Numbers of our subscribers have told us that they alone are worth far more than the subscription price of *THE DRUGGIST*; and we have no doubt that anyone who acts on his suggestions, as far as they are practicable in each person's own locality and circumstances, will reap a decided benefit from them.

Protonuclein..

Tablets.	(100 3 grain Tablets in bottle) per doz. \$ 9.00
"	(1000 3 grain Tablets in bottle) each 6.75
Powder.	(1 oz. bottles) per doz. 6.00
"	(8 oz. in bottle) each 5.50

REED & CARNRICK,
30 Wellington St. East, TORONTO.

Duncan, Flockhart & Co.'s

Blaud Pill Capsules

Are soft and flexible Never become oxidized
Never become hard Never vary in strength

These Capsules are put up in 1, 2, and 3-pill sizes, with or without Arsenic, and can be supplied in boxes of 25 or 100 (each). They are prepared by a unique and original process, which entirely overcomes the tendency to **hardening** which is so common in the Blaud Pills.

R. L. GIBSON,
88 Wellington St. West,
TORONTO.

Genuine Antikamnia Preparations

ANTI-KAMNIA POWDERED.

- ANTI-KAMNIA TABLETS,**
(1 gr., 2 gr., 3 gr., 5 gr. or 10 gr. each.)
ANTI-KAMNIA and CODEINE TABLETS,
($\frac{1}{4}$ gr. Antikamnia, $\frac{1}{4}$ gr. Sulph. Codeine.)
ANTI-KAMNIA and QUININE TABLETS,
($\frac{1}{2}$ gr. Antikamnia, $\frac{1}{2}$ gr. Sulph. Quinine.)
ANTI-KAMNIA and SALOL TABLETS,
($\frac{1}{2}$ gr. Antikamnia, $\frac{1}{2}$ gr. Salol.)
ANTI-KAMNIA, QUININE and SALOL TABLETS,
($\frac{1}{2}$ gr. Antikamnia, $\frac{1}{2}$ gr. Sulph. Quinine, 1 gr. Salol.)



Without above Monograms None are Genuine.

These preparations are made solely by us and are put up in 1-oz. packages only.

NEVER IN BULK.

Trade supplied by all jobbing houses in the United States, Canada, Mexico, South and Central America.

British & Colonial Depot, 46 Holborn Viaduct, London, E. C., Eng.

The Antikamnia Chemical Company,

Price List on Application.

ST. LOUIS, MO., U. S. A.

**Quinine,
Quinine Wine,
Beef, Iron and Wine,
Cattle Spice,
Elliot's Syrup of Figs,
Cascara Cordial,
10c. Essences,
Stick Licorice, 4^s,
Acid Carbolic,
Cubeb Cigarettes.**

We can please you in all these lines.

Cod Liver Oil

We have **Borthen's** (Norwegian) and **Bowring's** (Newfoundland) to offer, and each is the best of its kind. You will be immensely pleased with the latter; but if you must have Norwegian oil, we have it for you of the highest quality. **Bowring's** oil is **non-freezing, pale, and of good odor**, and comes in 25-gallon tin-lined barrels. Before accepting a cheap "Norwegian" oil, or any other, write us for quotations.

EXTRACT OF BEEF, "Rex Brand"

Solid	Liquid
2-oz. pots.....\$ 3.80	4-oz. bottles.....\$ 4.75
4-oz. ".....7.50	8-oz. ".....8.50
8-oz. ".....13.00	16-oz. ".....15.00
16-oz. ".....24.00	

As regards **quality**, we recommend it.

The prices speak for themselves.

"Highland" Chest Protectors

PROTECTORS, chamois-lined, No. 1, \$6; No. 2, \$7.50; No. 3, \$9.
VESTS, wool-lined, No. 4 (30-32 in.) and No. 5 (33-35 in.), \$12.
VESTS, chamois-lined, No. 6 (30-32 in.) and No. 7 (33-35 in.), \$18.

Acacine (the perfect emulsifier)
Frog-in-your-Throat,
with new "ads."
Gibson's Candles
Jackson's Nutritive Wine
Miller's Tin Boxes
Coulter's Steam Vaporizers

Cleaver's Unscented Soap
Rimmel's Unscented Soap
Wyeth's Malt
Vin St. Michel
Vin Mariana
Triangle Tooth Soap
Cachous "E"

ELLIOT'S EFF. CAFFEINE AND POT. BROMIDE.

All orders entrusted to us receive careful attention and prompt shipment.
We solicit your enquiries.

Elliot & Company

5 Front Street East

TORONTO

Many Druggists

find

Wall Paper

a profitable stock to carry.



Many Druggists

say that our goods are the MOST
SALEABLE and PROFITABLE.



When ready to order write to us, and
we will arrange to send a salesman,
or samples by express.



M. STAUNTON & CO.

Manufacturers

944-950 Yonge St., Toronto.

JUST PLAIN TOBACCO OF THE HIGHEST GRADE

FLAVOR AND FRAGRANCE UNEQUALLED

FORTIER'S Cigars and Cigarettes

GIVE BEST OF SATISFACTION AND WILL INCREASE YOUR SALES.

We Sell to most Druggists
But we are anxious to Sell to you

WRITE
TO-DAY
FOR
A
SAMPLE
ORDER

Lafayette

Cigars and Cigarettes 5 cents

Creme de la Creme

Cigars and Cigarettes 10 cents

Royal Turkish

Cigarettes 15 cents

Sonadora

Cigars and Cigarettes 15 cents

Creme de la Creme Cigar Co.

MONTREAL.

STEARNS' Perfumes

QUADRUPLE STRENGTH

*Fragrant
Delicate
Lasting*

SOLD TO THE DRUG TRADE ONLY



We truly believe no line of odors made in this country
has become more popular than ours have, and no department
of our business has increased more rapidly than that of Per-
fumery. We know this increase is due entirely to the fact that
while our prices may be higher than some others, our quality
is of one standard—the BEST, and that only.

Fine Perfumes must possess three distinguishing charac-
teristics:

- 1st—Fragrance in abundance without being loud.
- 2nd—Delicacy with sweetness and freedom from sharpness.
- 3rd—Permanency and lasting qualities.

Our odors possess all of the above good points, and retain
their fragrance and delicacy indefinitely.



SPECIAL
* ODORS



"4" ROSES
AMORITA
ROSALYS
ENGLISH LILAC
TONQUIN MUSK
"CZARINA VIOLETES"



REGULAR ODORS

White Rose	New Mown Hay	May Blossom
Lily of the Valley	Ylang-Ylang	Jockey Club
Heliotrope	Wood Violet	Sweet Marie
White Lilac	Stephanotis	Frangipanni
Opoponax	Ideal Bouquet	Crab Apple Blossom

Our Complete Perfume Catalogue will be
mailed on application.



Frederick Stearns & Co.

MANUFACTURING PHARMACISTS

DETROIT, Mich.
LONDON, Eng.
NEW YORK CITY.

WINDSOR, Ont.

One More Free Course.

To help the pharmacist in every way is our ambition, and whenever it is possible to put them in the way of benefiting themselves we are anxious to do so. On two different occasions we have been able to offer to those who desired it courses of instruction in optics, free of charge, believing that this line will prove one of the most paying accessories that can be carried on in connection with the drug trade. Now that a movement is on foot to regulate the practice of optical work by legislation, it seems especially desirable that those druggists who can should make an effort to place themselves in a position to command the major portion of the business. We have therefore concluded arrangements with the Optical Institute of Canada for one more course of instruction, to commence on January 18th, 1897. This course will be limited to six students, and will only be open to one druggist in each town where there is no graduate optician. The usual price for this course is \$25, but we give it absolutely free. The only conditions are that the applicant must be of good business standing, be a paid subscriber to the CANADIAN DRUGGIST; that he be entitled to keep a drug store in whatever province he may reside, and that no other graduate optician is in business in the same town. As some difficulty has heretofore been experienced in deciding who should or should not be accepted on account of priority of application, it has been decided that the applications will be entered according to date of the application, so that persons in provinces outside of Ontario will have an equal chance with those living nearer Toronto, and that no application be made earlier than December 1st, so that all druggists may have this journal in time to write us by that date. It is needless to say that those students who have taken the previous courses of instruction have been exceedingly pleased with it, and numbers of them are now making money by this newly-acquired instruction.

Personal.

Many of our readers, especially those who have taken a course of instruction from Mr. Lawrence, will read with interest the following notice, taken from *The Pharmaceutical Journal* (London, Eng.): "Since removing from 13 Oxford street west, to the larger and much more convenient premises at 51 Clerkenwell road,

E.C., Messrs. J. Raphael & Co. have arranged for a series of classes in practical sight-testing and correcting under the direction of Mr. Lionel Laurance, late principal of the Optical Institute of Canada. This gentleman brings from Canada, where the optical trade has been brought to a point of great scientific excellence, credentials of high order, and not only has he the practical knowledge of his profession gained by life-long experience, but he is also possessed of the essential quality, 'tact,' in imparting that knowledge to others."

Death of L. W. Yeomans.

On the morning of Oct. 19th a most disastrous fire took place in the drug store of L. W. Yeomans, Belleville, Ont., in which Mr. Yeomans lost his life.

How the fire originated will never be known, but that it was caused either by an explosion of gas or of an oil lamp seems certain. It appears that Mr. Yeomans left his residence at 4 a.m., telling his wife he wanted to get his men started at work at six o'clock on the unloading of a car of material for the manufacture of Scott's emulsion, he compounding the medicine for the Canadian trade as agents for Messrs. Scott & Bowne, of New York, the proprietors. They were to have started that day on the putting up of the winter supply. Mr. Yeomans usually went to his business before 6 o'clock a.m. He carried the only keys of the premises, and always opened the store. It was discovered that he had been to the barn in rear of the store, fed the horses, and left a lamp burning in the stable.

Fears were at once aroused that Mr. Yeomans had perished in the flames, and when he did not make his appearance at a later hour doubt was changed to certainty. The flames gained rapidly on the firemen, and when it was seen that the store and its contents were doomed they turned their attention to protecting the adjoining buildings. By nine o'clock the magnificent store, which was one of the most elaborate in the city, was completely gutted. The roof fell in about eight o'clock, leaving no thing but the bare and tottering walls standing.

Shortly after eleven o'clock one of the firemen working at the front street entrance to the store discovered the body of Mr. Yeomans lying in the cellar near the north door. From the position in which the remains were found it is evident that the unfortunate man had rushed to the front of the building with a view to escape through a front cellar window, but was overcome with the smoke, and perished in the attempt. The dead man lay upon his face on the floor, where he had evidently been overcome by the smoke.

Mr. Yeomans was born in Belleville 52 years ago. He commenced his drug career with the firm of Lyman, Elliott & Co., of Toronto, with whom he remained for several years. He started a business in Belleville about 20 years ago, and has

remained in that city ever since. He was a past vice-president of the American Pharmaceutical Association, was for some years a member of the Council of the Ontario College of Pharmacy, and an alderman of his native city.

Mr. Yeomans was a member of Morris Lodge, No. 11, A.F. & A.M., and took a prominent part in educational and religious matters. He leaves a wife, but no family.

Correspondence.

The Editor does not hold himself responsible for the opinions of correspondents. Correspondents must in all cases send name and address, not necessarily for publication.

Cheapening of Alcohol.

Editor CANADIAN DRUGGIST.

DEAR SIR, We would like to remind your readers of our appeal to them in a previous number for action looking to the cheapening of alcohol.

We understand there will shortly be, in many of the larger towns, a Parliamentary Committee which will take evidence from business men as to the desirability of tariff alteration. This will be a rare opportunity for the druggists to strengthen their cause in this matter.

One or two men in each place, representing the feeling of the druggists of that place, would make the success of the movement secure.

Surely there is enough at stake to justify any man in spending the necessary time to do this much.

It is doubtful if the alcohol manufacturers have the least particle of a pull on the present government, and in that case the amount of influence which can easily be exerted by the drug trade will be ample to secure the boon of justice in this matter.

Ask your member to notify you when the committee is to be in your town, and talk this thing up when your chance comes. It will put dollars in your pocket.

Yours truly,
ANDERSON & NELLES,
London.

Be Wise.

It is not wise to toot other people's horns: to illustrate which the *Buffalo Druggist* tells its readers how a few months ago a certain brand of candy made at Boston was liberally displayed in the show windows of nearly every drug store in Buffalo, and presumably the same was the case in other cities. The drug stores gave that particular candy its great run, which, having been secured, was diverted to grocery and department stores. The same is true of a certain alleged malt extract and a cough cure. The druggists should use this wall and window space to display goods which he markets himself, and which will not be found in department stores.

Pharmacy in England.

The P.A.T.A. and the Crusade against Cutting—Mr. Lionel Laurance in London—The Optical Trade as a Profitable Extra-Dispensing Charges—Should Medicated Lozenges be Retained in the New B.P.? Bovril and Mr. E. J. Hooley—Decorated Tin Boxes in Pharmacy.

(From Our London Correspondent.)

The steady growth of the Proprietary Articles Trade Association is a matter of sincere congratulation to those chemists who handle profitless patent medicines. Many of the principal druggists have absolutely refused to budge from the position of charging the full price, but have felt it keenly when their customers have remarked that the brother pill lower down the street only charges so much, and intimate their intention of trading there. In respect to some thirty proprietaries, the position, thanks to the P.A.T.A., is now altogether changed, and one has no fear that a customer may go elsewhere and obtain them cheaper. No better proof of the real value of the association's work could be produced than the hysterical state to which it has already reduced one or two of the principal cutting companies. Boots' drug stores are to be found in the midland counties to the extent of some forty shops, and Day's southern drug stores occur pretty freely in London, and on the south coast. Both of these are already feeling sick, and one has hit upon the novel expedient of getting the public to sign a petition to manufacturers not to join the association. There is no doubt that if the movement is to be really effective it will have to win much greater support from the largest proprietary manufacturers. It is rather dispiriting to find that several of the firms that protested their objections to cutting, only a few years ago, are not yet on the list of supporters. Many are doubtless on the fence, and a good deal will depend upon the attitude of chemists towards the movement in the course of the next twelve months. So far the chemists have been by no means too enthusiastic towards an undertaking framed entirely in their interests, and which cannot possibly do them harm.

The name of Mr. Lionel Laurance, late principal of the Optical Institute, is well known to all readers of THE CANADIAN DRUGGIST, and they will doubtless be interested to learn that Mr. Laurance is now in London, and is giving his special course of instruction on optics in Messrs. J. Raphael & Co.'s establishment, 51 Clerkenwell road, E.C. I hear from Messrs. Raphael that quite a large number of chemists have entered their names for the course, and soon it is expected that the optical business will form a profitable addition to many a pharmacy. I may mention that Messrs. Raphael & Co. were recently turned out of their old premises in Oxford street, W., by the new Central London Railway, and have acquired much larger and more convenient premises in the Clerkenwell road. Here the manufacturing work is carried on side by side with the execution of special prescription

work. It speaks well for their enterprise that they should have promptly secured Mr. Laurance on his arrival in England from Canada, where the optical trade has been brought to a high degree of scientific excellence. Aluminium frames are one of the latest improvements in ladies' lorgnettes, introduced by Messrs. Raphael, and the same metal is being used in opera, marine, and field glasses. Their new sight test-case, containing spherical glasses and also single lenses, is a complete outfit for those entering the optical business, and is supplied in solid walnut, lined with satin, at the moderate price of \$25.

An interesting question is raised by a Midland chemist, Mr. R. D. Gibbs, on "How to arrive at dispensing charges." In a cogent and thoughtful paper he runs a tilt against all established methods and charges, and boldly suggests that every prescription should be charged on its merits. That is, according to the time, material, and apparatus employed. There is a good deal of sound sense in his remarks that in many instances the dose system of charging is unfair, and may be classed with the unsatisfactory method employed by medical men to arrive at their charges, viz., based upon the rental of the patient's house. It has often seemed to me that this unsatisfactory arrangement of prices is of far greater importance than chemists imagine. It is not merely a question of getting as much as you can—buy in the cheapest market and sell in the dearest is a good old-fashioned formula. But is that what we are doing when we make our dispensing charges suit the neighborhood? At any rate, if some simpler plan could be devised that would appeal to the intelligence of the public, a good step would have been made towards solving the problem of dispensing by doctors. At the present moment a householder has to choose between a visit from a doctor with medicine thrown in, as it were, at \$1 a time, and a 75-cent fee to the medical man, with 50 cents to the druggist for physic. Naturally, he prefers the former arrangement, although he is willing to agree that it is not the best.

Why should medicated lozenges still encumber the Pharmacopœia? is a question that might well be directed to the Medical Council. It is supremely absurd that page after page should be taken up with wretched formulae denoting to a fraction of a grain the quantity of sugar and powdered gum acacia to be contained in a lozenge. If anything of the kind is required at all, of which I have doubts, it would surely suffice to indicate the medicinal strength alone. How many English-speaking retail pharmacists manufacture a single lozenge from one year's end to the other? And, in spite of the B.P., we all know that most of the so-called B.P. lozenges can hardly claim to have been made in strict accordance with the letter of the formula. Since the considerable advance in price of Soudan gum acacia, nearly all the lozenge-makers have


favoured the other varieties, and, as there is no real reason why they should not, it only goes to confirm any contention that confectionery might be deleted from the new B.P.

The Bovril deal is causing a good deal of comment, and will give the concern an excellent advertisement. Briefly, it consists of an offer of Mr. E. J. Hooley, of Dunlop tire fame, to buy up the Bovril Company, lock, stock, and barrel, for the sum of \$10,000,000, and, as a guarantee of good faith, \$500,000 has already been paid. As the \$5 shares are quoted at about \$25, it will be seen that they are already valuable property. But Mr. Hooley's scheme is to refloat the company at the advanced sum of \$12,000,000, the difference between the two figures going into somebody's pocket after expenses are paid. There will be a rearrangement of capital, the creation of debentures, deferred and preferred shares, etc., and Lord Playfair will not appear amongst the new directors. It is not so very many years since I remember sending back a supply of Johnstone's Fluid Beef as unsaleable—there being practically no demand. Then, one fine morning, Mr. Johnstone registered the word "bovril," and proceeded to make it known by supplying hot-water cans of elegant shape to stand on small gas stoves, so that hot bovril could be supplied at any time. This caught on immensely, and a judicious amount of advertising, with a fair sprinkling of improved invalids' preparations, has done the rest.

Why do not the enterprising makers of tin boxes attempt to secure the ordinary druggist as a customer, but leave him to the tender mercies of the wholesale houses? Many chemists would prefer to supply Seidlitz powders in tin boxes, camphorated chalk, carbolic powder, etc., if he could buy the decorated tins at a reasonable figure. If he appeals to the makers, they blandly offer to make him six gross, but they will not make a stock article and keep it for the trade. Of course, the demand of the drug trade is small compared with some trades; thus the maker of the small decorated tins for carrying compressed tablets in the pocket supplies them in vastly larger quantities to the drapers as a receptacle for pins, etc. Still, there is room for a little enterprise in this connection, and the druggist would support the right articles, I am sure.

One of the partners in a large department store in New York city, that has achieved success by its progressive methods, gives this as a recipe for getting rich: "The surest road to success is to be honest, and all men will trust you; honorable, and all men will believe in you; industrious, and all men will have confidence in you; just, and all men will admire you. Be alert; save a part of what you earn, so as to be always independent; store your mind with useful knowledge, and the world is yours."

OUR PRESENT SEASON'S PURCHASES OF

Staple DrugsFine Chemicals Heavy Chemicals French and English Perfumery Hair and Tooth BrushesDruggists' Sundries, Sponges, etc. 

HAVE been unusually heavy, and we shall be in a particularly good position to supply our retail druggist friends with all requisites. We solicit a continuance of the liberal patronage so kindly bestowed on us in the past.

Archdale Wilson & Co. Wholesale Druggists Hamilton

Season 1896-7

Headquarters for

PLAYING CARDS

DOMESTIC

Complete range at
Close Prices.

AMERICAN

Best stock from the
Leading Manufacturers.

EUROPEAN

The latest productions of Chas. Goodall & Son, the World
Renowned Manufacturers.

Whist Sets,

Bezique Sets,

Duplicate Whist,

Foster, Pall Mall, and Tom

Thumb Whist Markers,

Poker Chips, Etc., Etc.

NEW

FIRESIDE GAMES

A splendid line; Enamelled, Ivory Finish, handsomely printed
in Colors.

Leading Numbers:

STRANGE PEOPLE,

OAK LEAVES,

THE PINES,

MAPLE GROVE,

CHESTNUT BURRS,


FLAGS,

POPULATION,

IN CASTLE-LAND.

WARWICK BROS. & RUTTER,

WHOLESALE
MANUFACTURING
and IMPORTING
STATIONERS



TORONTO, ONT.

We Manufacture

Envelopes
Writing Tablets
School Blanks
Memo. Books, etc., etc.

And are Headquarters for

ALL KINDS of **STATIONERS' SUPPLIES**

DO YOU WANT THESE GOODS?
 Then write us for prices.

THE W. J. GAGE CO., LTD.,
 52-54 Front St. West, TORONTO.

Caprece Bernhardt

A new and unique preparation for the skin. This preparation is the discovery of a French specific for the complexion. Its peculiar properties are the removal and prevention of wrinkles, the refining of coarse pores, and a wonderful tonic for whitening and softening of the skin.

Sold in bottles at 50cts. and \$1 00
 Manufactured only by

Franz Jahn, 73½ King St. W.
 TORONTO.

The J. STEVENS & SON CO'Y, Ltd.,
 145 Wellington St. West, TORONTO.
 (Near Union Station.)

Druggists' Specialties.
 Surgical Dressings.
 Elastic Stockings.
 Clinical Thermometers,
 Glass Importers.
 Trusses and Suspensories,
 Medical Batteries,
 Lints and Cottons.
 Abdominal Belts.
 Instruments of all kinds

Send for quarterly quotations.

Alpha Rubber Co. Ltd.

MONTREAL TORONTO

We now carry in Toronto a well-assorted stock of

FINE RUBBER GOODS

From which our customers in the West may be promptly served.

HEAD OFFICE BRANCH OFFICE
 335 St. Paul St. Cor. Front and Yonge
 MONTREAL TORONTO

Trade Mark



Registered

TYPKE & KING

CHEMICAL MANUFACTURERS

7 Jeffries Square,

St. Mary Ave.,

LONDON, ENG.

Hypophosphates a Specialty....

Acids Phosphoric and all other Pure Acids.

Ammonia Nitrate, Oxalate, Valerianate and all Ammonia Salts.

Antimony Crocus, Sulphide, Golden Sulphuret, and all Antimonial Preparations.

Essences from Fruit, etc., for Confectionery

Hypophosphites Baryta, Iron, Lime, Magnesia, Manganese, Potash, and Soda.

All Chemicals for Analytical, Photographic, and Pyrotechnical purposes.

WE ARE GROWING!
WHO ARE GROWING?

Saunders & Evans

The rapid increase in our business has necessitated our removing to more commodious premises. Our new business home is

30 Wellington St. East

Toronto

Where can be seen the largest, best, and cheapest stock of

Sponges and Chamois Skins

In Canada. Our Sponges are purchased for us at the fisheries, and come direct from Nassau, Florida, Cuba, Abaco, Acklins, Exuma, and the far-famed Isles of Greece. Our Chamois are imported from the headquarters for this article in England and the United States.

The secret of our being able to give unprecedented value in these lines is our knowing how to buy. The case in a nutshell. Try us, and convince yourself that our claim is no vain boast.

Sponges to suit every requirement and every trade. Sponges of every variety and every grade. In original packages, unbleached, or in cases, bleached.

Levy & Co.**Printers**

Druggists' Labels,
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A SPECIALTY.

Toronto, Ont.

Lyman Bros. & Co.
 TORONTO (Limited)

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PERFORATED CHAMOIS

Girls' or boys' sizes, viz., Small, \$9 doz.
 Misses' or youths', viz., Medium, \$12 doz.
 Ladies' or gents', viz., Large, \$15 doz.

Send for samples.

**Old Style ALKALI Powdered**

Send for quotations.

**PRAY'S**

“ Emery Boards,
 “ Ongaline,
 “ Rosaline,
 “ Diamond Nail Enamel.

MEYERS' Carnogen, Grease,
 Paints and Specialties, full line.



WARWICK'S Jockey Club,
 White Rose.

**MARACHALE'S Celebrated Perfumes**

\$2.20 for 20-oz. glass-stoppered square bottles; 5 bottle lots \$2.10; 10 bottle lots \$2.00.

Best value for the money in the market in the following odors:

Crabapple Blossom, Sweet Marie,
 Jockey Club, White Lilac,
 Lily of the Valley, White Heliotrope,
 Musk, White Rose,
 Eau de Espagne, Wood Violet,
 Stephanotis, Ylang-Ylang.

Splendid value for filling fancy bottles for the Holiday trade.

Trade Notes.

J. O. Clark, druggist, of Picton, Ont., died Oct. 15th.

A. E. Macartney, druggist, of Midland, Ont., died Oct. 15th.

A new drug store has been opened in Waterford, Ont., by Dr. Davis.

E. Bruce Miller has purchased the drug business of A. F. Gledhill, at Chatham, Ont.

R. W. Reekie, formerly of Chatham, has opened a new drug store in St. Thomas, Ont.

A. T. Brown has purchased the drug business of J. O. Kannawin, Acton West, Ont.

The drug business of M. F. Eby, Oshawa, Ont., was badly damaged by fire recently.

The Toronto Pharmacal Co. have been appointed Canadian agents for the sale of Neave's Food.

The druggists of Chatham, Ont., have agreed to close at 8 p.m. every night except Saturday.

Dr. Higinbotham, of Brantford, has purchased the drug business of Dr. Brunskill at Walkerton, Ont.

T. Scott & Son, Woodstock, Ont., have sold their drug business to H. Mead, formerly of Trenton.

Mr. Henry R. Gray has again been appointed by the Lieutenant-Governor as one of the Provincial Board of Health for the Province of Quebec.

D. Ranson, Son & Co., of Buffalo, N.Y., have opened an office at 127 Bay street, Toronto, Ont. Mr. Francis N. Kahle is the manager and sole representative for Canada and Great Britain.

The continued ill-health of Mr. D. A. White, druggist, of Woodstock, Ont., makes it necessary for him to spend the winter in a southern climate. We understand he leaves shortly for the Southern States.

We reprint an article in this issue from *The Canadian Medical Review* on "Toxic Amblyopia," by W. E. Hamill, M.D. The subject is very important to everyone who fits spectacles, and we advise all opticians to carefully read it.

Ottawa now has its departmental store, selling patent medicines at "cut rate" figures. Bryson, Graham & Co. advertise that, "notwithstanding the combine," they can get all the goods they want. Can the O.S.R.D. tell us where?

James W. Tufts, Boston, Mass., has issued a very handsome catalogue of Hot Soda apparatus. Two of those illustrated, the "Pompeian," a Greek vase, and "Sol," a very artistic urn, are both illustrated in colors, and are "things of beauty."

A change has taken place in the drug business of A. E. Pilkey & Co., Chatham, Ont. Dr. Holmes and Dr. McKeough are said to have been admitted as part-

ners, together with Mr. Turner, a former clerk, and Mr. Gunn, of Woodstock.

Dr. Roddick, M.P., Montreal, has been appointed by the Dominion Government president for Canada of the Military and Naval Surgical Section of the Pan American Medical Congress to be held in Mexico during this month, but will be unable to attend owing to urgent professional engagements.

The Dodds Medicine Company, of Toronto, have opened an office in Elliott square, Buffalo, and have formed a company for the purpose of manufacturing Dodds' Kidney Pills in the United States. The officers are: F. G. Babcock, Homellsville, president; J. A. McKee, Toronto, vice president; and B. Yates, Buffalo, secretary and treasurer.

Fire destroyed the entire stock of Gilmount Bros. & Co., St. Peter street, Montreal, on Oct. 16th. The loss on stock was in the neighborhood of \$40,000, and consisted chiefly of the products of the laboratories of Johnson & Johnson, the Upjohn Pill and Granule Company, Humphrey's Homeopathic Specifics, Chase's Glues and Cements, etc., all of whom are represented in Canada by this firm.

A number of changes have recently been made in the Toronto house of Evans & Sons, Limited, wholesale druggists. J. C. Hedley, who formerly represented the house on the road throughout Western Ontario, is now in charge of the business. W. T. Burke, one of the city travellers, now takes Western Ontario, and C. W. Armstrong takes the city. F. G. Sanderson has gone to the Montreal house.

The death is announced, at New York, of Mr. M. H. Mason, F.C.S. Mr. Mason was for some time one of the wholesale drug firm of Evans, Sons & Mason, of Montreal, and managed the firm's business there. After severing his connection with the above firm he went to England, where he remained for several years, first doing business as drug broker, and afterwards representing Seabury & Johnston in London. Latterly he has been connected with the New York house as secretary. Mr. Mason was also secretary of the New York College of Pharmacy, and editor of the *Alumni Journal*. He was also prominent in scientific and philanthropic circles. He died after a brief illness of pneumonia, at the age of fifty-two.

The drug store of L. W. Yeomans & Co., Belleville, Ont., was totally destroyed by fire Oct. 19th, Mr. Yeomans losing his life in the fire. Scott & Bowne's stock of goods for the Canadian trade was also stored in the building. It is estimated that there was about \$26,000 or \$27,000 worth of stock in the building, but it may have been even more than this. Mr. Yeomans' insurance was as follows:—On stock—Caledonian, \$3,500; Mercantile, \$3,000; Northern, \$2,000; London and Lancashire, \$3,000. On shop fixtures and heating apparatus—Phoenix, of Brooklyn, \$2,300. Scott & Bowne, stock—Mercantile, \$500; Connecticut, \$2,000; Aetna,

\$2,000; Waterloo Mutual, \$2,000. Fixtures and plant—Mercantile, \$300. Mr. Yeomans' stock amounted to about \$16,000, and Scott & Bowne's stock and plant to about \$10,000. The drug store of A. L. Green was also damaged by smoke and water. He had an insurance of \$2,700.

Montreal Notes.

Business in all retail branches continues very bad in this city and pharmacists especially feel the hard times. Family accounts are very slow in coming in.

Most pharmacists have adopted the plan of sending out their bills on the first of each month.

Professor Bemrose, F.C.S., and Bell gold medallist, Lecturer on Botany at the Montreal College of Pharmacy, has returned from an extensive botanizing expedition to the Laurentides. It is possible Mr. Bemrose may publish an account of the flora of this almost unexplored region.

The Journal of Commerce states that Henri St. Germain of St. Hyacinthe, druggist, is in difficulties—liabilities about \$5,000.

The stock of drugs, lease of store, &c. of the bankrupt estate of P. R. deMesle, 1243 St. Lawrence Main St., were offered for sale by tender on the 30th ultimo: The stock of drugs and fixtures, according to the inventory, amounted to \$700; balance of lease \$150; and also building lots at Sault au Recollet, valued at about \$1,200.

A new Pharmacy has been opened in the East End. Mr. J. Labianche is the name of the new proprietor.

Mr. David Watson, jun., is recovering rapidly from his fractured collar bone, and it is whispered that gentle zephyrs bear the sound of wedding bells as a consolation.

The Journal of Commerce states that Dr. H. St. Germain, druggist, St. Hyacinthe, has been unable to get an extension of time and has assigned.

A sad event occurred a few days since in this city. Mr. Mark Ethier, a well-known advocate, went into Mr. A. Roberts' pharmacy on St. Lawrence Main Street and purchased carbolic acid. He swallowed a quantity of it at his boarding house, and was taken to the Notre Dame Hospital, where he died that night. An inquest was held, and a verdict of suicide while in a state of mental depression was given. Family trouble was probably what led to the unfortunate event.

It has been asked, Why can't the Montreal College of Pharmacy have day lectures? The answer is simple. The clerks and apprentices could not earn enough to pay their board, if they absented themselves two or three hours a day besides meal hours. Pharmacy does not pay well enough to induce the children of wealthy parents to sacrifice themselves on its altar. When the college was started the idea of night lectures

was kept steadily in view, so that young men with energy and grit might with a little extra exertion qualify themselves and at the same time earn fair wages.

Mr. L. W. Yeomans, the Belleville pharmacist, so well known all over Canada, has, alas, gone over to the great majority. He was a personal friend of the writer, and much correspondence with him on pharmaceutical society matters developed a real admiration for his sterling qualities. He much regretted the small attendance at the late meeting of the American Pharmaceutical Association in our city.

The classes at the College of Pharmacy are fairly well filled this year, considering the hard times. There was the usual slaughter of the innocents at the preliminary examination for permission to study. It is evident that French ought to be better taught in the English schools and English in the French schools.

Prince Edward Island Notes.

At the Provincial Exhibition held some weeks ago Watson's drug store had a very fine exhibit, which was pronounced by all visitors the best exhibit of any kind ever seen in the province.

Mr. C. D. Rankin is having a metallic ceiling put in his drug store. When this is finished and the painting done the drug store will be one of the neatest in the city.

Mr. Wm. Macdonald has ceased to do business in O'Leary. Mr. Turner, merchant of that place, has bought the stock, book debts, etc., and reopened the drug store under the management of Mr. Ivey T. Warren, who was for some years in the employ of Mr. W. R. Watson. The press contains some flattering notices of the new store and good wishes for its prosperity.

Mr. George Reddin's many friends will be pleased to hear that Mrs. Reddin is recovering from her almost fatal illness.

Business is generally exceedingly dull in Prince Edward Island.

Manitoba Notes.

Winnipeg, Nov. 7th, 1896.

The Martin, Bole & Wynne Company, manufacturing chemists, Winnipeg, have been successful in procuring for their laboratory the services of Mr. L. D. Little of Chicago, formerly with the Stearns & White Company of that city.

Mr. Little comes to the Northwest with a well earned reputation as an able chemist. His long and varied experience in the pharmaceutical manufacturing business in the United States has earned for him an enviable position in the profession here. He is a graduate of the Maryland College of Pharmacy, and for some years occupied a position on the teaching staff of the college as professor of chemistry. In the city of Baltimore, with the leading

manufacturing house in the South, he was employed for five years as analytical chemist.

In the year 1893 Messrs. Stearns & White of Chicago offered him the position of chemist in their large establishment, which he accepted, remaining with them until his departure for Winnipeg.

The Martin, Bole & Wynne Company are to be congratulated on procuring the services of Mr. Little for their manufacturing department, as is also the drug trade in Western Canada on having a man of Mr. Little's experience become identified with trade here.

Mr. C. M. Eddington, one of Winnipeg's leading druggists, has deserted the ranks of bachelorhood and taken unto himself a wife, in the person of Miss Webb, of the Winnipeg telephone exchange. The contracting parties have a host of friends in Winnipeg, who extend heartiest congratulations.

Mr. and Mrs. Eddington are now in the south on their honeymoon.

Mr. J. F. Howard, of Winnipeg, spent a few days last week at the mining camps in the vicinity of Rat Portage. Mr. Howard is largely interested in some very valuable claims on the Lake of the Woods.

Mr. A. T. Andrews, druggist, Gladstone, in company with Mrs. Andrews, is spending a few days in Winnipeg visiting relatives.

Mr. E. D. Martin, President of the Martin, Bole & Wynne Company, Winnipeg, is now at Rossland looking after the interests of the San Francisco Mining Company, of which he is treasurer. The company have one of the best mining claims in the Train Creek division. Mr. Martin will likely remain there until Christmas.

Mr. F. E. Arkell, formerly in the drug business at Wawanesa, has purchased the business of Messrs. W. M. Bond & Co., Carberry, Manitoba.

Mr. W. E. Cowan, druggist, Deloraine, was in Winnipeg last week on a business trip.

Canadian Association of Opticians.

At a meeting of the Executive Committee, it was decided to call a General Meeting of all Graduate Opticians practising in Canada. This meeting will be held in the Rossin House, Toronto, on Thanksgiving day, November 26th, at 2 p.m., for the purpose of organization, and it is particularly requested that all who can will attend.

Those who have already been elected will receive their certificates at this meeting, and the Secretary will be glad to receive applications for membership from all qualified opticians. The membership fee has been placed at the low figure of One Dollar per annum on all applications received before or at the General Meeting.

F. A. ELLIS, Secretary-Treasurer,
3 King St. East, Toronto.

The Editor.

The editor is a man paid to think for other people. He doesn't always think as they do, and thus has to stand all forms of abuse. No one is more anxious to please than he, and few are less likely to. He is continually trying to place himself in the position of his prospective readers, so that he can more nearly conform to their ideas. He, more than anyone else, realizes that life is too short and honor too fleeting to enable him to act as a philanthropic educator of the public. He knows that it is easier to swim with the tide than against it, and endeavors to keep with the motion of the flood. His sense of conscientiousness may be very fine, but he dare not let it become his motive power. His personality must never be shown in his writing and the egotism of self must ever be absent. His thoughts must be your thoughts and your ways his ways. He becomes by experience a politician of ideas and a judge of human character, or else a journalistic failure. He lives to tickle the fancy of his readers, and the more pleasingly he can do it the greater his chances of professional success. His life is a truly diversified one, yet is ever kept secluded from public view. But few know him or the power he wields. His most intimate friends and relatives know him in an outward sense, but even they are unaware of the peculiar mental play which evolves mind-food for those for whom he writes. Usually he is not personally a favorite, as he becomes by habit so chronically representative of other people as to fail to truly represent himself. To distinguish him, look for a man with a far-away look, a pale, thoughtful face, bloodless complexion, long, thin fingers, and coat sleeves glossy or threadbare on the underside from the elbows down. No appearance of affluence characterizes him. He looks as if his weekly salary was always needed when it became due, and that even it was but scanty provision for a man who earns his bread by the sweat of his mind.

Making the Blind to See.

A story hails from Russia about a new instrument for making the blind to see, said to be the invention of Dr. Noisniewski. The principle of the instrument is the sensitiveness to light of selenium and tellurium, both of which change their quality as conductors of electricity with a variation in the light to which they are exposed. In stating that the blind can "see" by this instrument, a relative meaning only is intended. While their actual vision will be unaffected, they will feel the various effects of changing light by its action. It is claimed that Dr. Noisniewski has enabled a totally blind man to find the windows in a room, and, after a little practice, to distinguish approaching men from approaching animals.

—*British and Colonial Druggist.*

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Our Impervious Paper Boxes are the best on the market.

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**Somerville's
Pepsin
Gum ?**

It is the Gum the others are selling.

It is admitted to be the best Pepsin Gum made in Canada.

Our Carving Set Premium Packages are having a great sale.

C. R. SOMERVILLE

LONDON, ONT.



For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

Has won 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at \$1.00. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.



CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and \$1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

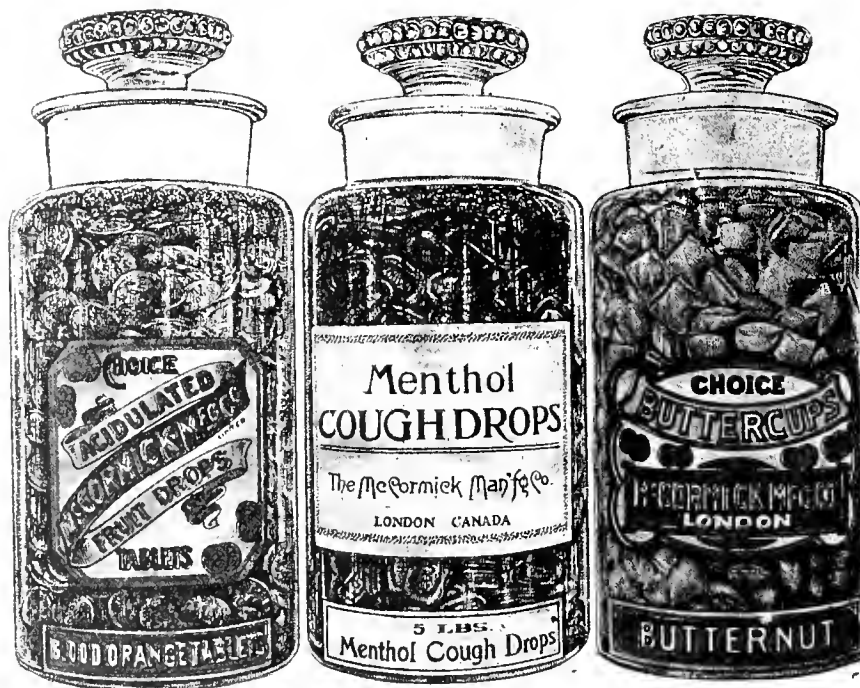
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Greatest Remedy Known for
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CASTOR-FLUID

For the hair.

DENTAL PEARLINE

An excellent antiseptic tooth wash.

SULPHUR PASTILLES

For burning in diphtheritic cases.

SAPONACEOUS DENTIFRICE

An excellent antiseptic dentifrice.

These Specialties

All of which have been well advertised,
more particularly the "Castor-Fluid,"
may be obtained at all the wholesale
houses at Manufacturer's price.

HENRY R. GRAY

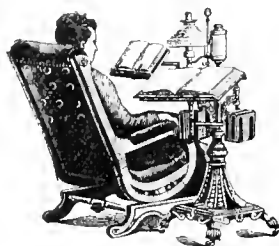
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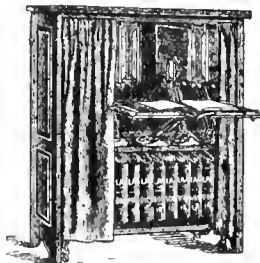
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WM. AUGUS, Man.
Formerly of
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Pharmaceutical Education—Past, Present, and to Come.

Extracts from an address by BARNARD S. PROCTOR.

METHODS—OLD AND NEW.

Past.—The old method was, every man for himself; learn whatever you can that is useful to you; keep your own secrets, keep others ignorant, make them think that your knowledge is very deep, that your philosopher's stone is capable of great things which are not to be seen and understood by ordinary mortals. This is the education suited to the pope, to the parson, or the fossil, men who think light irreligious and flashy unless it be dim. In "pre-charter" days those studied who wished to do so. Many did not wish for any systematic study after leaving school; now the terminus is pushed a little further on, and many cease systematic study when examination is passed, but will still pursue one or more congenial subjects, while they drop those which do not afford them pleasure or palpable profit.

Present.—It is now the turn for the public and the professors to be educated, the former to learn what is good for them, the latter to learn how to bring into existence the pharmaceutical forces requisite for the safety of the nation. It is only by the development of sound practical ideas on the part of the public, the legislature, and the teachers that satisfactory progress within the craft can come about.

Future.—In the future there may be an army of pharmacists—10,000 men, 1,000 corporals, 100 captains; it may be 10,000 tactotums, or it may be nothing that we can imagine from our present experience and powers of prevision. Our present concern is with the doings of to-day, and our care must be that any step we take must lead to a solid foundation, from which future steps in advance may be taken.

TOO MANY PHARMACISTS.

The number of men who can make a living by dispensing and the sale of poisons is limited, not by Act of Parliament, but by natural law; and if the inculcation of professional etiquette leads the pharmacists to neglect reasonable trade customs, they will insure the permanence of the substratum of unqualified men who flourish by the contrast between a bastard professionalism and an open cultivation of free trade in all the largely-consumed articles of materia medica. It would be one of the most difficult tasks the Pharmaceutical Council could contemplate to teach the public to see the advantage of paying increased prices for ordinary drugs or preparations because of their being supplied by learned men. Merchants and manufacturers must and do learn their art, and will continue to supply most things wanted in quantity better than a small operator can produce them. This is a fact which it is scarcely necessary to teach to either the public or the pharmacist. It is only the articles of which the consump-

tion is small or irregular that are better prepared by the seller at the time they are required. The skilled operator, who has not only passed an examination, but has practised his calling on such lines as to develop the germs of knowledge which passed him through the examination room, till they have evolved a habit and a power to meet and overcome all little troublesome difficulties, is in a position to flourish more abundantly than anyone who is satisfied with having got his certificate, then ceases to study. But how is the habit to be formed? Where there is little dispensing done, and little opportunity for chemical and pharmaceutical operations, the wits and wisdom of the scholar grow rusty, and if he has the good luck to develop, as we often see in small agricultural towns, into postmaster, banker, or manure merchant, it is because he has known better than his teachers what he should learn, and what he should cultivate.

PHARMACY AS AN ADJUNCT ONLY.

One thing that we all must learn is that pharmacy must be unremunerative to three-fourths of the country pharmacists, except as an adjunct to trade of a miscellaneous character, and the pharmacist will not get the miscellaneous trade unless he learn the arts and habits of trade and practise them in as satisfactory a manner as his competitors. At times when I have gone into small neighboring towns and found the chemist acting as banker I have felt respect for him, without asking after his curriculum or examination. His position was proof that he had learned to be a useful and trusted member of society, and thus doubled the value of his pharmaceutical certificate. In many such towns the dispensing done by the two or three chemists in a year will not amount to as much as one pharmacist in a large town will do in a week. The work is not enough to keep alive the habit, which was formed in embryo as a preparation for examination. More real good would be done towards insuring competency in those engaged in dispensing by reducing their number till there was not more engaged in pharmacy than could find pretty constant employment for their hands in working with drugs, buying, selling, compounding, etc. A creditable passage through the examination room at the age of twenty-one or twenty-three will do less to insure a man's competency at thirty than the habitual work of a dispensing establishment where the better part of each day is occupied with drugs. It would be more to the credit of the Pharmaceutical Society that 1,000 chemists and druggists should be competent to render satisfactory services to the public than that ten or a hundred illustrious men have been brought up in the society's school, and have ceased to be pharmacists.

HEALTHY PHARMACEUTICAL EDUCATION.

For pharmaceutical education to be healthy, it should be in response to the demand of pharmacists who feel it neces-

sary for their success. There will be no fear of superficial reading and of knowing all are "anxious to obtain the knowledge for the purpose of carrying on an honorable calling." The anxiety to obtain knowledge is good security that it will be well learned, and the fact that it is for the purpose of carrying on the calling will insure its practical and habitual application. The school ceases to be creditable when its aim is to enable candidates to pass an examination, but is eminently creditable so long as it succeeds in fitting the scholar or helping him to fit himself to carry on the honorable calling of pharmacy with satisfaction to his customers and to himself. If it were possible for examinations to prove whether or not a candidate had "competent skill, knowledge, and qualification," it might be a legitimate procedure to have the teaching directed to the preparing of the student for the examination. But no examination can be a proof of qualification unless it includes the testing of a man's habitual work—work which he performs without an idea that it will be submitted to criticism. It is not knowledge which fits a man for the work of life, but the habit of doing that which knowledge shows to be desirable. Habit is of slow growth, and cannot be formed without considerable time. Much is said about the nervous candidate under examination, and justly so, but the opposite must also be kept in view, that many know what to do and how to do it when impelled by the desire to satisfy an examiner, yet they will not do so well behind the tradesman's dispensing screen. It is well to know how a duty should be done; it is better to be able to do it; the best thing is to do it habitually. In caligraphy a man may know what form letters may have; he may be able by taking care to form them as they should be formed; but he only is a good writer who habitually forms his letters well—well, that is, so as to be easily read, though written with facility and suited to the place they have to occupy. So it is with pharmacy; it is not the knowledge, not the ability, but the habit which makes the good man. There are few things which give so much insight into a man's habitual work and care as an inspection of his handwriting, provided you have a specimen which has been written without any view to its being criticized.

WHAT EXAMINATION DOES.

Examination does something towards providing that the graduate is competent for his business—examination plus a curriculum does something more, but the two together are not equal to the customer's experience, as an indication of whether a tradesman supplies the wants of the public. The public will have regard to the social or civil qualities, and the commercial side of the tradesman's character, and his habitual correctness in his transactions; and no amount of scientific drill will compensate for deficiencies on these points, about which his patrons would feel themselves competent to judge. A

readiness to take up new ideas, and new lines of policy, new views of subjects which may be entertained by those with whom we may be dealing, is often wanting in Englishmen, perhaps more especially in those who have had good schooling and a thorough drilling, rather than the education developed by practical work, and the contending with natural difficulties. A curriculum followed by an examination is like a brick-making machine, the clay is put in, the pressure is put on, and the square man is turned out; perhaps very soft at first; and it depends upon what quality he is made of—how he stands fire, and whether he remains square for the term of his days.

The knowledge which a man gains before examination should be like a bundle of roots, capable of growth, and, though some are likely to decay, others ought to go on developing and yielding him profit and pleasure for the remainder of his days. It does not follow that the knowledge which is most profitable is directly productive of the greatest number of pence. I have learned more botany since I passed my examination than I did before, and am not aware that I have profited a single penny directly from the acquaintanceship, but the profit of life is not counted entirely in pennies.

THE EXAMINATION ROOM V. THE PHARMACY.

The examiner puts a little difficulty into the hands of the candidate and insures that he has no interruption and nothing to distract his attention. In the shop a customer puts into his hands a prescription, and wants to talk the politics of the day while the medicine is being made up, and if the dispenser has any hesitation and fails to look happy under trying circumstances it is apt to be a bad job for him, and a worse job still if in the endeavor to conceal his difficulty he fails to do the right thing. Coolness will be just as difficult to maintain under the eye of the customer as under the observation of the examiner, who knows the difficulty which has been presented, and knows how much it is reasonable to expect from the sufferer under torture. Candidates are very like *asafœtida*—if they have had a good grind and keep very cool they may pass through the sieve very satisfactorily, but under the influence of less rigorous surroundings they may again run into amorphous lumps. The curriculum and examination together are intended to do something towards securing that equality of opportunity which is so much desired by the simple-minded philanthropists of the present day, but so long as pharmacists have different fathers and mothers there will always be inequalities. The first question in the preliminary ought to be, "What is your mother?" and it would be a mercy if every candidate were rejected who could not say that his mother was a careful and thoughtful woman, from whom he had inherited and by whom he had had developed these same valuable qualities. If

this were happily so, the diploma would only be a touch of gold upon the true metal of which the man was made.

THE LIMITATION OF PHARMACISTS.

If pharmacists are to be skilled men, their numbers must be limited to so many as can make a living by the practice of that calling. The limitation might be by act of parliament, as we find in some other countries, or it might be by natural law. If act of parliament could secure pharmacy to the qualified man, and could ensure that no others should work the craft, natural law would probably do the rest. If the practice of pharmacy provides the income that enables a pharmacist to pay for eggs and bacon, he will probably prefer to practise pharmacy and eat eggs and bacon rather than sell eggs and bacon that he may live. The qualification required of the pharmacist might so far deter entries into the trade as to keep the numbers within the limit that would find enough work for each to keep his hands in practice and his mind stored with knowledge. The chief difficulty will always be the supply of fairly competent men in sparsely populated districts. This need cannot be neglected in any scheme worthy of national acceptance. The present minor, followed by a sufficient supply of work to keep the hand well in, would be enough to aim at for a generation or two, and would be better than the major degree followed by a subsequent stagnation from the want of work to do. The voluntary position of the major degree will still tempt the better class of men, and as an honorary and scientific distinction it may be made of a higher character than at present, but as a door to legal status it is for the time being too high. Great physicians, great lawyers, and great accountants are found in great populations. You may have great bigots in little villages, because bigotry grows greater by want of friction with fellow-men; or you may have great philosophers, because solitude and leisure encourage thought; but as men cannot be great pharmacists with little practice, in a truly rural district a major man will become minor by degrees, and beautifully less as his dispensing becomes less in proportion to his miscellaneous trade; still, he had better sell ducks' eggs than take to quacking himself. The only truly satisfactory position for pharmaceutical education would be that the public should so appreciate the advantage of their dispensing and the supply of dangerous drugs being in the hands of skilful men that there should be a demand for high-class pharmacists, and the demand for learned men should create a demand for learning. By no other process would the demand be a healthy, a natural, and a fruitful one.

THE POINTS SUMMARIZED.

To summarize my points:
Competent pharmacists are the product of practice.

Practice depends upon the fraction work

and one day or other of the factors,

factors must be multiplied or divided till there is about a day's work per day for each worker.

In sparsely populated places there must be some trade associated with dispensing.

The best trade for the purpose is the sale of drugs upon trade principles.

The best education is that which a man naturally seeks to enable him to practise his calling with success.

The best examination is that which estimates the habitual endeavor to do good work.

"Pre charter" circumstances developed many eminent pharmacists.

Post-charter circumstances have not developed greater, perhaps not even greater numbers of, eminent pharmacists.—*Pharmaceutical Journal* (London).

Formic Aldehyde in the Treatment of Ringworm.

Having found that pure cultures of both forms of trichophyton quickly succumb to even the vapors of formic aldehyde, and that no subsequent growth was ever obtained from infested hairs which had been dipped in the 40 per cent. solution for five minutes, Dr. Salter was induced to try the local application of the remedy in the out-patient department of Guy's Hospital. Forty cases were operated on, the strong solution being applied with a brush or mop for ten minutes, the treatment being repeated every other day on four occasions, and then discontinued. Only five cases required the method to be repeated; in the rest the fungus was completely eradicated. The application causes irritation and discomfort for a brief period, but does not vesicate the scalp; it produces, however, a thick crust, to remove which an emollient should be employed. A remarkable complication was noticed; in a few cases cedema of the face was noted some hours after the painting. In one case this was so marked as to prevent vision, from swelling of the eyelids; there was no pain, redness, or constitutional disturbance, and it quickly passed off.—*Pharmaceutical Journal*.

Female Pharmacists in Hungary.

The Hungarian Minister of Education issued regulations on August 10 of this year under which women will be allowed to take up the calling of pharmacy, being subjected to the same regulations concerning the time of study, experience, etc., as are already enforced for the men. It is an open question whether the women who have passed the State examinations under the Hungarian regulations will be permitted to practise in Austria. As yet no official action has been taken in the matter by the Austrian Government.

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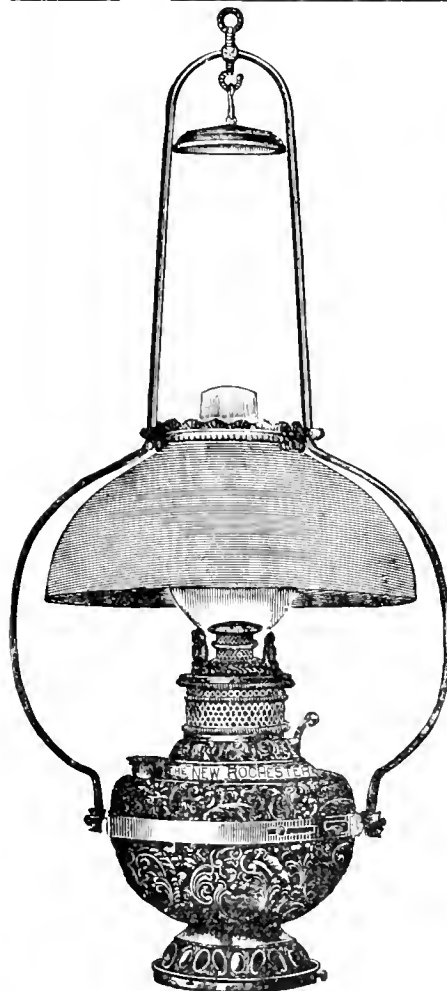
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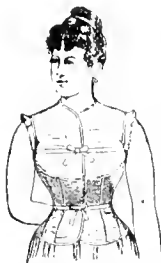
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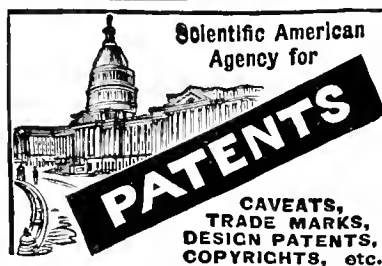
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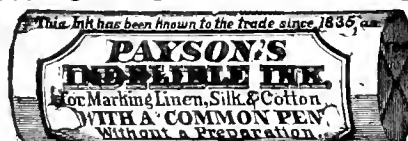
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Robert's Eye Water
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Dr. Howard's Quinine Wine
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Strong's Summer Cure
Dr. Howard's Cod Liver Oil Emulsion

Pharmaceutical Association. Province of Quebec.

PRELIMINARY EXAMINATION OCTOBER 1ST, 1896.

TRANSLATE INTO ENGLISH.

"Quand Telemaque s'approche de la ville, il fut bien etonné de voir toute la campagne des environs, qu'il avait laissée presque déserte et inculte, cultivée comme un jardin et pleine d'ouvriers diligents."

TRANSLATE INTO FRENCH.

Cæsar spent his money with lavish extravagance to increase the number of his friends and partisans, and his opponents had hoped that the exhaustion of his finances would put a stop to his machinations.

ENGLISH GRAMMAR.

1. Write out and punctuate the passage dictated. 2. Mention the various ways in which are formed (a) the plural form of nouns, (b) the feminine form of nouns. 3. Criticize the following: (a) He appears to enjoy the universal esteem of all men. (b) Alarmed at the news, the boat was launched at once. (c) The attempt was found to be impracticable. (d) They seemed to be nearly dressed alike. 4. Explain with examples the difference in meaning between *may* and *can*, *shall* and *will*, *farther* and *further*. 5. Give the principal parts of the following verbs: Thrive, hew, seethe, sew, wring, awake, swim, bid, flee, fly.

LATIN.

Translate as literally as the idiom of the language allows: 1. "Hoc praelio facto, reliquas copias Helvetiorum ut consequi posset Cæsar curat pontem in Arare faciendum, atque ita milites transduxit. Helvetii repentino ejus adventu commoti, legatos ad eum mittunt." 2. In what case is each of the following words: Praelio facto, reliquas copias Helvetiorum? 3. Decline together pontem faciendum. 4. Give the derivation of commoti, and tell with what substantive it agrees. 5. Conjugate the tenses to which the following forms belong: Posset, curat, transduxit.

ARITHMETIC.

1. If a gallon contains 277.274 cubic inches, find the contents in bushels of a bin 18 feet long, 6 feet wide, and 9 feet deep. 2. What is the value of $\frac{1}{11}$ of $\frac{1}{12}$ of a vessel, if a person who owns $\frac{3}{11}$ of it sells $\frac{1}{4}$ of $\frac{2}{5}$ of his share for \$1,400? 3. What sum will amount to \$3,213 in ten years at 8 per cent. simple interest? 4. Two pipes together fill a cistern in one hour; one of them alone fills it in $1\frac{1}{2}$ hours. In what time will the other fill it? 5. If, by selling goods for \$182, 6 per cent. is lost, for what sum must they be sold to realize a profit of 7 per cent?

GEOGRAPHY.

1. Name the principal oceans and seas of the world. 2. Name the provinces

and territories of Canada, with their capitals. 3. Name the principal railways running through Canada. 4. Locate the following: London, Glasgow, Mississippi, Thames, Seine, Berlin, Egypt, Constantinople, Washington City, the Russian Empire.

HISTORY.

1. Name the Stuart sovereigns of England, and give what you think is the most important event in the reign of each. 2. Give the name and date of the first permanent settlement established in America by the English and the French respectively. 3. Give a brief account of the explorations of Columbus, Cabot, Cartier, and La Salle. 4. Give some resemblances and some differences between the constitution of Canada and that of England. 5. Give the cause and chief events of the "Hundred Years' War."

MINOR EXAMINATIONS, QUEBEC, OCTOBER 13TH, 1896.

MATERIA MEDICA AND TOXICOLOGY.

1. Ergot—from what obtained. What are the parts used? Give medicinal properties, official preparations with strength and doses. 2. Give formula, proportion of active ingredients, and doses of the following: P. Ipecac Co., Tr. Digitalis, Liq. Arsenical, Tr. Nuc. Vomica, Vin. Colch. Tr. Bellad., and Infus. Digitalis. 3. What is Tolu and Asafetida? Whence and how obtained? Name B. P. preparations of each. 4. Cantharides—what is it? Give habitat. Name its active principle, its best solvent, and official preparations and doses. Male fern—from what obtained? Name parts used, mode of preparation of official liquid and its uses.

CHEMISTRY.

1. Two (2) fluid ounces of Muriatic Acid weigh exactly 1000 grains. What is its Sp. Gr.? Is it B. P. strength? If not, what should it be, and how much should one fluid ounce B. P. weigh? What is the percentage of HCl gas in Ac. Hydrochlor. B. P., and also Ac. Hydrochlor. dil.? 2. Define combustion, the law of diffusion of gases. Which is the most diffusible, O. or H.? 3. Describe a Bunsen's burner and its flame. Give advantages thereof and use in the chemical laboratory. Give full description of process for making Soda Bicarb. B. P., accompanied with equations? How would you distinguish a solution of Bicarbonate from one of Carbonate?

PHARMACY.

1. Ung. Hydrarg. Nit.—Give full B. P. process of manufacture. What is the formula and strength of the Ung. Hyd. Nit. dil.? 2. Dialysis—What is it, and by what phenomenon is it produced? Explain the process. Which substances remain and which pass through the dialyzer? Give name and full process of one official preparation. 3. Granulated Effervescent Salts—What are the common and indispensable ingredients of

these, and why? Give process for making Mag. Sulph. Eff. B. P. and proportion of active ingredients. 4. Criticize fully the following R's, and how would you dispense them? Write directions in French:

R. Potass. Citric. 4 dr.
Quin. Sulph. 24 grs.
Ac. Citric. q. s.
Fluid Ext. Glycyrrh. 2 oz.
Syr. Tolu. ad 4 "
M. omni tertii horis ex aqua.
R. Quin. Sulph. 20 grs.
Ac. Sulph. dil. q. s.
Potass. Iodid. 2 dr.
Syrupus 1 "
Aq. ad. 8 oz.
M. Coch. mag. t. i. d. a. c.
R. Cocaine Mur. 5 grs.
Sodii Bibor. 15 "
Aq. Rosæ 1 oz.
M. Collyr.—U. modo dictu.

MAJOR EXAMINATION.

MATERIA MEDICA AND TOXICOLOGY.

1. Give source, habitat, parts used: natural order, physical characteristics, and B. P. preparations, with strengths and doses of the following: Aconite, Belladonna, Fox Glove, Cascara, and Hops. 2. Physostigmine—What is it, and from what obtained? Give therapeutical properties, name and strength of official preparation. 3. Strophanthus—What is it, and from what obtained? What are its medicinal properties and active principle? Give B. P. preparation, and full process for making, and dose. 4. Give antidotes for iodine, salts of arsenic, salts of copper, and cyanide of potassium, and how to prepare them.

CHEMISTRY.

1. Calculate the percentage of Ca_2HO in lime water, 438 grammes of which are neutralized by 20 c.c. of volumetric solution of $\text{H}_2\text{C}_2\text{O}_4$. Is it B. P. strength? If not, what is B. P. strength? 2. Give formula of Oleate of Lead, and equation illustrating its preparation. Is it official, and, if so, under what name? 3. What is the formula of Persulphate of Iron? Give mode of preparation and equation of Liq. Ferri Persulph. B. P., its sp. gr. and tests. 4. How much Sulphide of Antimony will be required to make 10 lbs. of Tartar Emetic? Show work of calculation.

BOTANY.

1. To what natural order belong the following plants? Give a general description of the principal parts of each one, and the names under which they are known in pharmacy. Thorn, Apple, Hemlock, Dandelion, Barley, and Gold Thread. 2. When a seed of wheat is put into the ground under favorable circumstances, what physical and chemical changes take place? Describe the plant from step to step in its growth to maturity. 3. Diagnose the natural orders—Liliaceæ, Atropaceæ, Rosaceæ, Graminaceæ. 4. What is a leaf, of what is it composed, what are its functions in the vegetable economy? What is the difference between an evergreen and annual leaf? Do evergreen leaves fall off at stated periods?

What do you understand by a deciduous leaf? What forms do the leaves of the Liliaceae assume?

PHARMACY.

1. Ac. Hydrocyan. dil. B.P. What are its characteristics? Give its chemical formula, percentage strength (by weight or volume). How is it prepared? Indicate and explain the process of titration of the B.P. State how it should be preserved, and why? 2. What is the menstruum employed in the preparation of Ext. Cinch. Liq. B.P. and Ext. Nux. Vom. B.P. Give percentage of alkaloids in each. Indicate and explain the process of titration of each. 3. What is the volume in c.c. of 500 grammes of Glycerine sp. g. 1.25, and how many c.c. of water should be added to it to reduce it to sp. gr. 1.18? A full account of the calculations must be given. 4. What is meant by Therapeutic, Pharmaceutical, and Chemical incompatibility? Give an example of each? What is the duty of the dispenser in either of these circumstances?

Pharmacy Examinations.

The Board of Examiners of the Pharmaceutical Association of the Province of Quebec held their semi-annual examinations for major and minor candidates in Laval University, Quebec, on Tuesday and Wednesday, when ten candidates for the major and nineteen for the minor examinations presented themselves. Of these the following passed, and are named in order of merit, namely: As Licentiates of Pharmacy, A. C. Paquette, Joseph Routhier, T. E. Huot, and Achille Goyette; as Certified Clerks, A. Lemoine, W. F. Roach, Norman Holden, A. Lebeau, A. P. Fortin, A. E. Clement, J. P. O. Boisseau, A. Chretien, and Phillias Theriault, the remainder of the candidates being referred back for further study. The candidates were examined by written and oral examinations, and the subjects examined upon were: Materia medica and toxicology, chemistry, botany, pharmacy, practical dispensing, reading of prescriptions, and weights and measures.

The examiners were W. H. Chapman and A. J. Laurence, Montreal; R. W. Williams, Three Rivers; A. E. DuBerger, Waterloo; and J. Emile Roy, Quebec; E. Muir, Montreal, acting as secretary of the Board.

The next examination will be held in Montreal in April, 1897.

Filmogen—A new dermatological varnish, introduced by E. Schiff. The film is elastic, smooth, and may be medicated with any of the medicines used in dermatology. It is also known as *Liquor adhaesivus Schiffi*.

Glutoform, also called glutol, is a formaldehyde gelatin.

Pharmacist and Physician.

If there are two classes of men who should go hand in hand through this life of trials and tribulations, comforting each other as they go with hope of a just reward in the hereafter, these two classes are the pharmacist and the physician.

Does this spirit of mutual dependence exist?

Does the physician accord to the pharmacist the consideration which is due a professional man? Is it not true that physicians too frequently look upon pharmacists as mere mixers of drugs, and that they forget that pharmacy, like medicine, is based upon a study of various branches of science? Any one whose opinion is worthy of consideration must acknowledge that pharmacy has risen to the dignity of a profession, and it is comforting to notice that physicians appreciate this fact in proportion to the extent of their knowledge of their own profession.

It is this tendency on the part of the enlightened physician to extend and accord equal professional rights and courtesies to the pharmacist that causes me to believe that the future relationship of the professions will become more cordial as the years pass by.

Higher standards of education are being adopted by both professions, and it is within the bounds of possibility that in the course of a few years each and every pharmacist will be a chemist in the true sense of the word.

The fact that a pharmaceutical branch has been added to the medical department of our Texas University is proof of the advancement of the profession of pharmacy, and it should be the object of every pharmaceutical apprentice to take advantage of the opportunity thus afforded and gain a scientific education.

It is the educational progress of the two professions, therefore, which must determine the future relationship of the physician and pharmacist, and to hasten this progress should be the aim of one and all.—*Bulletin of Pharmacy*.

Constituent of Cork Soluble in Ether.

Having found that some commercial ether in corked bottles, when evaporated, left a crystalline residue, while that contained in glass-stoppered bottles gave none, Koch attributes this to the body mentioned by Siewert, Kugler, and Chevreuil as being contained in cork and soluble in ether and alcohol, to which Siewert gives the formula $C_{17}H_{25}O$, calling it phellyl alcohol. At first Koch regarded the residue as sulphur, but on redissolving it in carbon bisulphide and evaporating needle-shaped crystals and not the characteristic rhombohedra of sulphur were obtained.—*Rev. Pharm.*

Asseptoline—A preparation for hypodermic medication, said to contain crystallized phenol and pilocarpin.

Tannoform.

This compound of formaldehyde and tannin, introduced by Merck, has been extensively employed by Buck and Moor as a dressing in various forms of skin diseases. It was employed either pure as a dusting power, or in a 20 per cent. ointment with lanolin and vaselin. It has also been serviceable in the dressing of surgical wounds, old infectious sores, bed-sores, ulcers, and other lesions. In all cases the antiseptic and drying effects were very marked, and there was no irritation of the skin. The authors also used it with satisfactory results as an internal remedy in infantile diarrhoea.—*B.M.J.*

Preparation of Gelante.

Gelante is the name given by Dr. P. Unna, of Hamburg, to a new dressing for certain affections of the skin, composed of gelatin and tragacanth. The method of preparing gelante, according to *La Semaine Médicale*, is as follows:

Any convenient quantity of tragacanth, in small pieces, is covered with thirty times its weight of cold water and is set aside to macerate for one month. At the end of this time it is exposed to hot steam for one day, with frequent stirrings from time to time, and finally squeezed through a piece of tarlatan. In another vessel the same quality of gelatin is allowed to soften in cold water, and is then submitted to the action of steam under pressure until solution is effected. The two materials (gelatin and tragacanth) are then united, and the mixture is submitted to the action of steam for two days, and finally passed through tarlatan under pressure. To the colate thus obtained add 5 per cent. of glycerine, 2 per cent. of thymol, and sufficient distilled rose water to mask the odor.

The liquid thus obtained contains 2½ per cent. each of gelatin and tragacanth. When spread on the skin it dries quickly, making a soft smooth covering. Quite a number of medicaments may be incorporated with this varnish, and some of them in very considerable quantities. Thus ichthyol may be incorporated up to as high as 50 per cent.; salicylic acid to 40 per cent., and a similar amount of resorcin and pyrogallol; phenol to 5 per cent., and sublimate to 1 per cent. Substances incompatible with each other in aqueous solution (as, for instance, salicylic acid and the various salts of ichthyol) remain without action on each other when incorporated in gelante.

It is claimed that gelante dries more rapidly than any other water-soluble varnish, while it is more refreshing to the skin, and its action is more pronounced than dressings of fats and oils.—*National Druggist*.

Mildiol is the trade name for a disinfectant material prepared from creosote and mineral oils.

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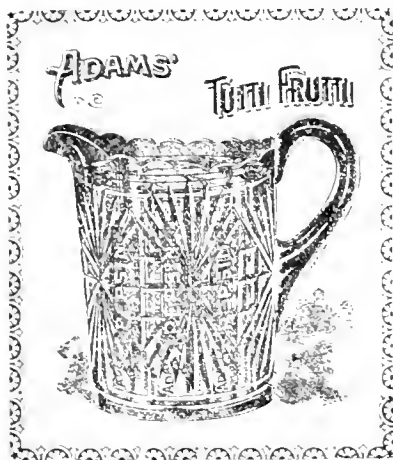
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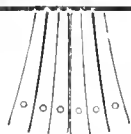
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Cocoa, Coco, Coca.

By P. CARMODY, F.I.C., F.C.S., Government Analyst and Professor of Chemistry, Trinidad

The substances, or preparations made from them, represented by the above names—the spelling and pronunciation of which are so remarkably alike—are now in common everyday use. As all of them are products of tropical or sub-tropical climates, and as there prevails for them at the present time a method of spelling so promiscuous that it is apt to mislead any persons not intimately acquainted with these substances into a belief that they may have a common origin, or are at least closely related, a short description of the three may prove of some utility. As a matter of fact these substances are in no way related. Cocoa is the product of a tree not unlike an apple tree in general appearance; most of the many coco preparations, such as coconut oil, coconut cake, coconut fibre, etc., are derived from the nut of the lofty coco-palm; whilst a shrub of medium size yields coca. So far as common commercial products are concerned, the useful part of the first is the bean, of the second the nut, of the third the leaf.

Almost everyone is familiar with cocoa or with chocolate, of which cocoa is the basis. Chocolate creams and the many similar preparations sold by confectioners have in recent years become deservedly popular, and have contributed to increase the consumption of cocoa to a marked extent. For certain reasons, more or less plausible in their nature, cocoa is rarely sold in a pure condition. But whether sold pure, or mixed with starch by manufacturers of prepared cocoas, or with sugar in chocolate, the part of the tree that supplies the pure cocoa is the small bean or seed, each measuring about three-quarters of an inch in length by half an inch in width. The color of the cured seeds is a rich brown, commonly known as chocolate color. Thirty or forty of these seeds are contained in an elliptical pod of a pale green, yellow, or apple-red color, and somewhat resembling a vegetable marrow in shape. This pod is thick, soft, and fleshy, and of no use whatever for commercial purposes. As soon as the pod is picked it is cut crosswise in the middle, to allow the seeds in its interior to be transferred to a receptacle for conveyance to the curing-house, and the pod is then thrown on the ground to rot, which it does very rapidly. The bean contains half its own weight of fat, and this large proportion is said to be the cause of the conflict that takes place between cocoa and weak stomachs. Manufacturers of prepared cocoa lessen this proportion of fat in two ways: (1) By adding a large proportion of starch; (2) by extracting the fat by the combined action of heat and pressure. The fat so extracted is now largely used in confectionery, and in medicine in the preparation of suppositories. The common name for it is almost invariably written *cacao* butter. This consistency in the spelling is due to

the fact that the influence of the botanical and scientific spelling is strong in medical literature, and is in striking contrast with the form of spelling now so commonly used by manufacturers and the public generally. From what has been stated above, it will be seen that the pod has no commercial value, and that the bean and its fat are the only simple products of the tree known to commerce.

The coco-palm yields a nut very different in size, shape, and structure to the pod of the cocoa tree. It is about as long as a cocoa pod; its thickness, however, nearly equals its length, and although it has three distinctly flat sides, the general form is somewhat globular. The color of the outer skin is green, sometimes with a slight golden tinge. Inside this skin is a thick layer of fibre—the coconut fibre of commerce—and inside this fibre is a hard shell about a quarter of an inch thick. This shell and its contents are familiar enough on our greens on fair days and bank holidays. The contents may be either in the liquid or solid form. In the fresh nut the liquid predominates, and is a very refreshing and acceptable drink in tropical countries; in the older nuts the liquid evaporates, leaving behind a beautiful white crust about half an inch thick, and adhering all round to the inner coat of the shell. This crust, in the form of desiccated shreds, is now very extensively used in confectionery. For other purposes it is dried in large pieces, and then ground into meal. This meal is placed in hydraulic presses, and at the ordinary temperature of the tropics the cocoanut oil of commerce oozes out in limpid water-like streamlets. The freshly-expressed oil is particularly sweet, and is often used for cooking purposes, especially by East Indians. As a lubricant for machinery it has an extensive use locally, and in every part of the world it is largely used for soap-making.* By a special process coconut oil can, it is said, be converted into an excellent substitute for butter, and the substance so prepared is called coconut butter, or sometimes coco-butter. The words "butter" and "oil" are unfortunately applied to products obtained from both cocoa and coconut.

The leaves of coca (or cuca) are either chewed with lime or other alkali, or made into a beverage in the same way as tea; but in this country an extract of the leaves in combination with wine, sugar, or chocolate is more popular, because more convenient and agreeable. Coca and coca preparations are well known to be excellent tonics and restoratives, especially in cases of nervous exhaustion. The leaves and the extract made from them are the two principal products known to commerce; but the alkaloid cocaine is now widely known, and has a high reputation as a local anaesthetic.

Though very regrettable, it is not surprising to find that words the spelling and pronunciation of which are so very

similar stand frequently in confusion, and in such a manner that confusion must inevitably follow. This is particularly the case with the first two. How frequently do we find *cocoanut* fibre, *cocoanut* cakes, *cocoanut* oil, desiccated *cocoanuts* printed thus in price lists, catalogues, and textbooks? The spelling suggests that they are products of the *cocoa* tree; and yet the writers must know that the *cocoa* tree yields no fibre, that cakes made from *cocoa* are invariably called *chocolate* (often with the addition of some qualifying word), that the *cocoa* bean is never sold as desiccated *cocoa*, and that the oil or fat of the *cocoa* bean is sold by the distinguishing title of *cacao* butter. This latter product is never used as a substitute for butter while the oil from the *coco*-nut is. In some technical books the latter is written *cokernut*, apparently with the object of avoiding ambiguity, but certainly at the expense of elegance. The systematic use of the following spelling for the products of the *coco*-palm would be a distinct advantage over present methods: *Coconut* fibre, *coconut* oil, desiccated *coconut*, etc., etc.

The confusion is the greater, because of the fact that both *cocoa* and *coconut* enter now so largely into confectionery and various articles of food; and it is likely to become more so with the introduction of new combinations and preparations. The list of chocolate preparations is already of formidable length and complexity. A recent addition, formed by a combination of two of the articles with which this paper deals, is "*Chocolate-cuca*," or "*Cuca-chocolate*," or sometimes "*Cuca-cocoa*." We have also "*Cocaine*" (an essence of *cocoa*, prepared by the firm of Epps), and "*Cocame*" (the poisonous alkaloid of *coca*), dangerously alike in spelling. "*Cocotina*," another trade name, is safer, but helps to increase the confusion.

In the interests of the public, it is desirable that ambiguity in the names of substances of common occurrence should be avoided whenever possible. On examining the conflicting words themselves, one cannot help being struck with the fact that of the three "*Cocoa*" is the one most open to criticism. It is evidently a corruption of "*Cacao*," which is the word commonly used to this day in *cacao*-growing countries.

Theobroma cacao is the botanical name originally given by Linnæus, and we commonly adopt the latter word in "*cacao* butter," but nowhere else. Writers on *cacao*, who have resided for any length of time in the tropics, almost invariably adopt the local and botanical spelling. The word "*Cacao*" is pronounced *kah-ka*, and runs as smoothly and euphonomously in conversation as the form we have adopted. The only other possible remedy is the adoption of "*cokernut*" for "*coco*-nut"; but this is an inelegant vulgarity, and cannot be recommended or justified. Although the writer has in this paper used the common form of spelling, he is distinctly in favor of the adoption of

* *Cacao* butter is also made into a soap.

"Cacao" for "Cocoa," leaving coco and coea as at present; and if educated writers systematically adopted this course, the word "Cocoa" would gradually disappear, and with it most of the confusion that at present is the consequence of the remarkable similarity in the orthography and pronunciation of these words.—*Chemist and Druggist.*

Marine Glue.

The true marine glue is a combination of shellac and caoutchouc in proportions which vary according to the purpose for which the cement is to be used. Some is very hard, and some quite soft. The degree of softness is regulated by the proportion of benzole used for dissolving the caoutchouc. Marine glue, according to *Work*, is more easily purchased than made, but when a small quantity is needed the following recipe will give very good results:—Dissolve 1 part of india rubber in 12 parts of benzole, and to the solution add 20 parts of powdered shellac, heating mixture cautiously over the fire. Apply the with a brush. The following is said to yield a strong cement:—10 parts of caoutchouc or india rubber are dissolved in 120 parts of benzine or naphtha with the aid of a gentle heat. When the solution is complete, which sometimes requires ten or fourteen days, 20 parts of asphalt are melted in an iron vessel, and the caoutchouc solution is poured in very slowly, in a fine stream and under continued heating, until the mass has become homogeneous and nearly all of the solvent has been driven off. It is then poured out and cast into greased tin moulds. It forms dark brown or black cakes, which are very hard to break. This cement requires considerable heat to melt it, and to prevent it from being burned it is best to heat a piece of it in a water-bath until the cake softens and begins to be liquid. It is then carefully wiped dry and heated over a naked flame, under constant stirring, up to about 300° Fahr. The edges of the article to be mended should, if possible, also be heated to at least 212° Fahr., so as to permit the cement to be applied at leisure and with care. The thinner the cement is applied the better it binds.—*Oils, Colors, and Drysalteries.*

Montreal College of Pharmacy.

The students in attendance at the Montreal College of Pharmacy have formed their association for the year, and elected the following officers: President, Oscar Thibault; vice-president, Hercule Guerin; secretary, Victor Archambault; treasurer, Arthur Lapointe; marshal, Leopold Bernard; committee, R. Casgrain, L. Bedard, P. Bergeron, E. R. Grignon, G. Clerk, A. Bachaud, L. Martin, and G. Richards.

Divine Tobacco.

Divine in hookahs, glorious in a pipe,
When tipped with amber, mellow, rich, and ripe;
Like other charmers, wooing the caress;
More dazzling when daring in full dress;
Yet thy true lovers more admire by far
Thy naked beauties—give me a cigar?—*Byron.*

Glad tidings for smokers! The Victorian branch of the British Medical Association has decided that members may smoke at all the meetings after the living exhibits—the patients—have been shown. This resolve is not the outcome of any fad, or sudden and unpremeditated move; it is the solemn, well-digested conclusion of an eminent body of men, who, like the members of the Physiological Society of London, are alive to the comforts derived from a cigar and a pipe, and members frankly admit that it will be the means of creating a better attendance and more interest in the proceedings of the association. Dr. O'Hara was the prime mover, and he justified his action on the ground of his firm conviction that smoking would materially benefit the meetings and create a greater spirit of *bonhomie* and good fellowship than had existed. The only objection raised to the proposal was that it might lower the dignity of the association, but this was easily disposed of. Dr. Harbunson delivered a lengthy speech in favor of smoking, treating the meeting freely to his views on the beneficial effects of the judicious use of the seductive weed and its sedative operation on an overworked or worried brain. After meals it promoted, or at least facilitated, digestion, inasmuch as the glands of the stomach, being reflexly stimulated, poured out an additional supply of gastric juice. He appropriately prescribed—

For each a smoke I prescribe: *ter in die et post cib.*

He drew some happy pictures of the club smoke room, and the intense comfort suggested by the dreamy languor of the after-dinner indulgent as a contrast to the impatient anti-smoker, and wound up with the beautiful lines ascribed to Lord Byron:

I had a dream—it was not all a dream
Methought I sat beneath the silver beam
Of the sweet moon, and you were with me there,
And everything around was free and fair;
And from our mouths upcurled the fragrant smoke,
Whose light blue wreaths can all our pleasures yoke,

In sweetest union, to young Fancy's ear,
And waft the soul out through a good cigar
There, as we sat, and puffed the hours away,
And talked and laughed about life's little day,
And built our golden castles in the air,
And sighed to think what transient things they were—

As the light smoke around our heads was thrown,
Amidst its folds a little figure shone—
An elin sprite, who held within her hand
A small cigar, her sceptre of command.
Her hair above her brow was twisted tight off
Like a cigar's end, which you must bite off;
Her eyes were red and twinkling like the light
Of Eastern hookah, or Meerschaum, by night;
A green tobacco leaf her shoulders graced,
And dried tobacco hung about her waist;
Her voice breathed softly, like the easy puffing
Of an old smoker, after he's been stuffing.
Thus, as she rolled aside the wanton smoke,

To us, her awe-struck votaries, she spoke:
"Hail, faithful slave! my choicest joys descend
On him who joins the smoker to the friend;
Yours is a pleasure that shall never vanish,
Provided that you smoke the best of Spanish;
Puff forth your clouds!"—(with that we puffed
again)—

"Sweet is the fragrance!"—(then we puffed
again)—

"How have I hung with most intense delight
Over your heads when you have smoked at night,
And gratefully imparted all my powers
To bless and consecrate the happy hours!
Smoke on!" she said. I started, and awoke,
And with my dreams she vanished into smoke.

—*Pharmaceutical Journal of Australasia.*

Prescription Ownership.

The ownership of a prescription, after the doctor has received his fee for prescribing, has been repeatedly discussed in pharmaceutical and medical prints and before assemblies of pharmacists and physicians. In our humble opinion, we hold that the prescription belongs to the patient just as much as any document he may have prepared by any professional man and for which he pays the stipulated charges. We will give our reasons for this opinion for what they are worth, and not with any presumption that they will prove particularly convincing to those who are inclined to an opposite view.

A prescription, written to meet certain symptoms in a case, is filled by the pharmacist and the patient uses the medicine. Suppose the compound was intended to relieve a cough or an asthmatic condition, and the symptoms were alleviated, but not entirely removed, after the use of one bottle. The patient thinks it unreasonable for a physician to expect him to pay a second fee for an order to have the original prescription refilled. Eventually, the patient recovers, and later on, should he suffer a recurrence of symptoms that seem to him identical with those for which he previously used the prescription, he will, in all probability, have the medicine again made up from it.

To be sure, if his self-diagnosis is faulty, the medicine will fail to accomplish the desired end, but for that the owner, and not the prescriber, is responsible. He may even go so far as to recommend it to his friends, and perhaps give them copies of it for their individual use. This is certainly overstepping the bounds of propriety, but we see no way to prevent it. He reasons that since he has purchased the doctor's opinion as represented by the prescription, he has a right to use it as he sees fit. The doctor, however, in most instances, will have an opportunity to "get even" in point of fee, when called upon to undo the injury done by medicine wrongly used.

The average patient sees no distinction between the doctor and any other professional man. When he applies to a lawyer for advice, or has a legal document prepared, and pays the fee, he believes he is privileged to use either again without reconsulting the attorney should a like occasion arise. He may even permit a friend to make and use a copy of some

legal form he has obtained, if he thinks it fits the case in which the friend is interested. Both are likely to be mistaken as to the application of the form, and the lawyer, later on, when called to unravel a legal tangle, will be in a position to secure a larger fee than the one the thrifty (?) friend endeavored to save.

An oculist, after careful tests, prescribes certain lenses to suit a patient's eyes. The glasses are purchased, and an acquaintance of the purchaser tries them superficially, and thinks they "just suit him." He gets the number of the prescription and procures a pair for himself. They may not be at all adapted to his use, and, perhaps, do his eyes harm. The oculist is powerless to prevent such a procedure.

If people will do these things, and such notions of economy are quite common, the professional men may rest assured that their business will eventually sustain no loss, although they miss the immediate patronage.

It occurs to us that the best way is to concede the ownership of the prescription to the person who pays for it, and not worry as to what subsequent use he may make of it—that's his affair—it will work out right for the physician in the end.—*H. L. Grimes, Ph.G., in The Spatula.*

Retail Drug Advertising.

A well-stocked drug store fairly bristles from end to end with interesting features and specialties that are highly susceptible to good advertising.

Very few first-class druggists are disposed to push the sale of proprietary medicines, except such simple remedies as they put up themselves. Most every druggist has his cold remedy, his corn cure, his dyspepsia cure, his tonics and laxatives. If these articles are good and he knows it, he has a perfect right to advertise them for all they are worth. If he is wise, he will not, at the risk of his reputation as a reliable druggist, puff them beyond their true merit.

No druggist should advertise one of his remedies until, by testimony and observation, he learns that it will perform the cures for which it was made.

The most of the druggist's trade hinges directly upon his reputation. He risks his reputation every time he prints a questionable claim.

His advertisements may be bright, sparkling, forceful, without being tinged with a particle of falsehood.

To be successful his advertising ought to dwell on carefulness in the handling and purity of drugs.

The druggist who advertises cut prices is running a mighty big risk. People get suspicious right away and steer clear of his place, especially when they have prescriptions to be filled.

The man who jumps at a shoe bargain or a hat bargain will generally fight shy of a pill bargain. He thinks there is no serious risk in wearing a cheap hat or a

cheap pair of shoes, but he has a horror of taking medicine that was bought at a bargain counter.

Buying medicine is like buying boats and life preservers; unless they're just right, they're not safe, and, if they are not safe, nobody who has sense wants them at any price.

When a person buys medicine he wants to feel that he is getting the right thing. A few cents' difference between the best and something else of a shaky quality doesn't stand in the way. A person of judgment will take the best because it is the safest.

Drug store ads ought to be interesting. They ought to be sensible. They ought to be clean. Each ad ought to tell some particular thing about some particular article.

There ought to be the sort of argument in every ad pertaining to prescriptions that would help to establish the druggist in the public mind as a scientific man—a specialist. A three- to six inch space in the local papers is about the correct thing for continuous advertising.

Snappy little leaflets and cards can be used to advantage as auxiliary advertising. Coarse, cheap, smudgy-looking dodgers should be avoided. Drug-store literature ought to be clean and dainty, short and clear, free from bluster and boasting. The advertising ought to be varied to fit the physical needs of the seasons and climates.

Porous plasters, liniments, cough mixtures, lozenges, chest protectors, hot-water bottles, and all other articles designed as insurance against coughs, colds, pneumonia, rheumatism, etc., ought to be advertised during cold, rainy weather. In hot weather people get thirsty; they also get cramps; flies and insects come to annoy them; delicate faces get sunburned. The wide-awake druggist ought to push his drinks, face lotions, insect powders, and so on, to meet the hot-weather wants of the people.—*Trade Magazine.*

A Most Reprehensible Practice.

The following pertinent editorial appeared in a late issue of the *Western Drug Record*:

"It often happens that an old bottle is brought into the drug store to be filled with some preparation different from that which the vial originally held. A new label is pasted over the old one and that ends the transaction.

"But sometimes it does not end it. Suppose the first sale was tincture of gentian and the second tincture of aconite, and the pasting of the last label over the first happens to be carelessly done. After a month or so the aconite label peels off and that potent poison is now labelled gentian. The owner of the bottle needs a bitter tonic, looks to see if he has one among the bottles, finds the aconite plainly marked gentian, takes a tablespoonful, and perhaps dies. Is not the possibility

of such a mishap—therefore, to have the druggist to make the residue that he has mutilated or remove the old label before applying the one necessary to designate the new contents? He should at least *never* fill a bottle with a deadly drug and superimpose its label over one designating a harmless preparation.

"A case is recorded which, though different, exemplifies the danger of sticking one label over another. In this case a dose of creosote was administered instead of castor oil, with fatal result. The bottle held castor oil originally, and was sent to the druggist to be filled with creosote. The creosote was properly labelled 'poison,' and named, but the old label, not removed, was so sodden with the oil that the grease penetrated through the creosote label and made it transparent, the words 'castor oil' appearing more legibly than the written word 'creosote.'

"There is, therefore, good reason for saying that the passing of one label over another is not a safe practice. How often do we see as many as four or five on a bottle! Indeed the writer once removed six labels from a bottle in order to get down to bed rock. In this instance the labels were all alike, and, strange to say, bore the imprints of the same firms—a pleasant evidence of unwavering patronage."

Unfortunately, the practice here alluded to is but too prevalent, the only wonder being that mishaps in such instances are not altogether of more frequent occurrence. The writer himself for years has been compelled to witness the exhibition both of criminal carelessness and slovenliness. To find three, four, five, six labels pasted one over the other was a matter of daily occurrence, and it is to be wondered at that the people do not resent such slipshod practices.

Never should one label be passed over another, not even under the reserve contained in the above quotation. And as far as prescription work is concerned, in case of refilling, the same label should not go out twice, but be replaced by a fresh one every time, for the sake of neatness and to avoid offending the already nauseated patient by disgusting-looking medicine vials. Labels are so cheap. With a stout jack-knife in the tool drawer, reserved for the purpose, it is the work of but a moment to scrape away the most obdurate label, at least to destroy its identity, while a moist rag will do the rest. Or in the winter time a vessel with hot water always may be ready for the purpose, the bottle being quickly plunged into the water and as quickly withdrawn, repeating the operation until the label has become softened. There is little risk of fracturing the glass, as the writer can testify from experience.

Salol collodion is formed by the action of salol camphor on nitro-cellulose, and is described (*M.D. M.C.*) as a viscous paste resembling collodion. *Drysilitis.*

Pharmacy in Turkey.

The regular means of gaining a qualification in Turkey is as follows: First, there is to be passed a preliminary examination, which includes arithmetic up to decimals, a little geography and history, and French grammar. This can be undertaken at any time during the three years the young Turk is bound to serve in the pharmacy. After the shop experience and the preliminary examination comes the school of pharmacy. Three years again have to be spent in this, and in each of these years two examinations have to be passed, one at the beginning and one at the end. The preliminary examination is, as it were, the entrance to the school. The last examination confers the degree of doctorate, and is the one qualifying to practise pharmacy in the country. In the case of foreigners, however, who are already possessed of a diploma giving qualification in their respective countries, the passing of the *colloquium* is required. At the school of pharmacy, geology, botany, physics, mineralogy, and pharmacology are the subjects in which instruction is given. Pharmacy in Turkey, in its regulation and practice, reminds one much of the same calling in France. No physician is allowed to dispense, nor is any physician permitted to enter into partnership with a pharmacist. Then the customs regulations as regards proprietary articles are severe, no medicament being allowed to go through, the composition of which is not known. If, however, the medicine can escape the customs, it can be sold freely, though it belongs to the "secret class," and this results in a great deal of smuggling of patent medicines. In the case of four drugs, however, the sale is entirely prohibited. These are cocaine, cannabis indica, sulphonal, and chlorate of potash. The French Codex is the standard medicine book. It is noteworthy in this connection, however, that no Frenchman has a pharmacy in Turkey. In the case of Englishmen, none of our countrymen either controls or is employed in a Turkish pharmacy. — *British and Colonial Druggist*.

Old-World Pharmacy.

In a collection of documents preserved by the Marquis of Salisbury at Hatfield House, the Historical Manuscripts Commission has found the details of a curious mixture which was administered to Sir Henry Upton, who was sent on a mission to the French King in Paris towards the end of the sixteenth century, and whilst there fell ill. The "Confectio Alcarinas," as it was named, was costly, if not efficacious, for it was compounded of "musk, amber, gold, pearl, and unicorn's horn." The patient also had "pigeons applied to his side, and all other means that art could devise, sufficient to expel the strongest poison, and he be not bewitched withall," and yet he died, his end being probably hastened by irritation

caused by the strange medicaments and crude treatment to which he was subjected.—*Chemist and Druggist*.

Sound Advice.

Every clerk in your store should echo in actions and words the ring of your advertisements and *vice versa*.

Curiosity is a keyhole through which many an advertiser pokes his argument into the public understanding.

As stiff breezes sweep clouds from the sky, so forcible advertising sweeps cobwebs from the wide-awake merchant's store.

After you have driven home your arguments, see that they are clinched behind the counter.

Don't shoot at random. Don't waste your ammunition on game that is beyond your reach. Try to get the people to buy something they already want. Don't try to make them buy something they couldn't use, even if you gave it to them. Study the wants of others and how to meet them, and you'll be more apt to get what you want.—*Trade Magazine*.

ELECTROLYZED SALT WATER.—Extraordinary claims are being made for electrolyzed salt water, or hermitine, which has not only proved a useful disinfectant for sewage, but is said to have been adopted as an antiseptic in Paris hospitals. According to Dr. Proger, of Asnières, it is neither caustic nor irritating; it may be applied to the mucous membrane as to the skin: it instantly removes all bad odors, stops all putrescent fermentation, kills microbes more effectually and rapidly than any other antiseptic, cleanses and heals fetid wounds and sores, and is, in fact, an ideal antiseptic. He urges its advantages from a domestic point of view for deodorizing and cleaning, and from a medical point of view as an antiseptic and healer. He reports successful use of it in cases of angina, coryza, and incipient diphtheria.—*Ex.*

Iodotannic and Iodogallic Syrups.

Iodotannic syrup, which is a rather ancient French preparation, has recently been revived, and is now frequently prescribed.

Professor F. Gay (*Répertoire de Pharmacie*), of Montpellier, France, has recently reviewed the older formulas of Berthet (1836), of Perrens, of Guillermond (1854), and others, most of which contained rhatany, and proposed the following:

IODOTANNIC SYRUP.		Grammes.
Iodine	1	
Alcohol, 90	12	
Tannin	1	
Simple syrup	1,000	

Dissolve the iodine in the alcohol by trituration (or take 13 grammes of recent

tincture of iodine), add the tannin, then the syrup, and heat to near the boiling point; filter when the syrup does not give a blue color with solution of starch.

IODOTANNIC SYRUP WITH RHATANY.

	Grammes.
Iodine	1
Alcohol, 90	12
Syrup of rhatany	500
Simple syrup	500

Mix as in the previous formula.

IODOGALLIC SYRUP.

(Syrup of Iodogallic Acid.)

	Grammes.
Iodine	1
Alcohol, 90	12
Gallic acid	1
Simple syrup	1,000

Mix as in the previous formulas.

The following is the formula of the *Société de Pharmacie de Paris*:

	Grammes.
Iodine	1
Alcohol, 90	14
Syrup of rhatany	085

Dissolve the iodine in the alcohol, mix with the syrup, allow to stand twenty-four hours.

The older formulas differed but slightly from these, but contained more tannin and iodine.

It was found that iodine effected an inversion of the cane sugar. The author concluded that those syrups made by allowing the iodine and tannin to react on each other formed a true iodotannic syrup, while in those in which all the ingredients were mixed at once the solution of the iodine was effected by the inversion of a portion of the sugar.—*American Journal of Pharmacy*.

An Improved Liquid Glue.

A German pharmaceutical chemist named Ernest E. Eduard Martens, of Neustadt-Holstein, has patented a preparation of liquid glass for joiners, upholsterers, etc., the object being to provide a strongly adhesive glue that will not be injurious to health. The process consists in dissolving ordinary glue in water, with the addition of salicylate of soda or of one of the compounds of the derivatives of the benzol kernel or group.

One hundred parts in weight of the very best glue made from leather parings are placed in a suitable vessel and allowed to be softened in 150 parts of water, after which 10 parts in weight of salicylate of soda are added, the mixture being heated in a water bath until the solid part is thoroughly dissolved.

To preserve the glue thus prepared, which remains liquid, one gramme of oil of cloves is added to each kilo. of glue.

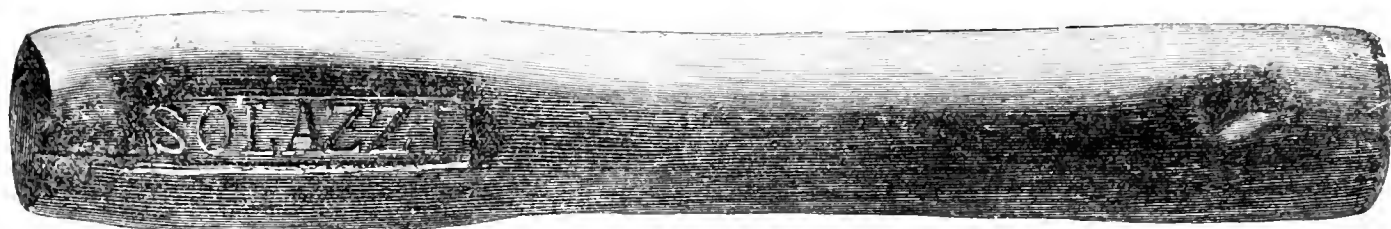
This solution diluted with water forms a cheap substitute for gum, and can be used for all household purpose.

The advantages claimed for this glue are that it does not require to be heated for use, and is entirely free from the objectionable smell of ordinary glue.—*Oils, Colors, and Drysalteries*.

"Solazzi"

THE CHEMISTS' BRAND

Liquorice Juice



The Testimony of "The Lancet"

The following is from "The Lancet" of March 30th, 1895:

"The above brand has long been known to be of standard purity. We found the specimen to be completely soluble in water, and entirely free from impurities of any kind. It is, therefore, well adapted for the pharmaceutical purpose for which it is so useful, while as a popular demulcent it is both safe and reliable."

Recommended also by "The British Medical Journal," "Health," "The Chemist and Druggist," "Food and Sanitation"



ASK FOR SHOWCARDS AND HANDBILLS

Wampole's

BEEF, WINE, AND IRON.

In Pint Bottles.....\$5 00 per doz.

Winchester (1/2 Imp. Gal.) 2 00 each.

Imp. Gallon, in 5 gal. lots, and over 3 50 per gal.

With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

1/4 Gross lots, and over.....\$60 00 per gross.
(Packed in One-Dozen Cases.)

We use a Pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

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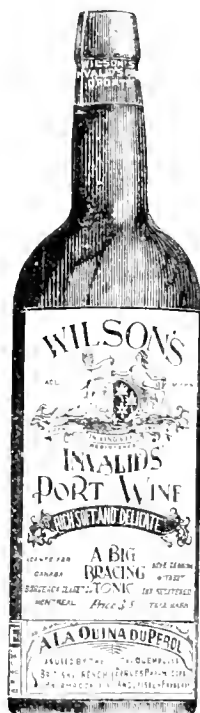
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The successful pursuit of the policy of "quick sales and small profits," which is that of the "department stores," and which they are forcing every other branch of trade to follow, implies, first, a sufficiency of ready cash to take advantage of every opportunity to buy to advantage, or "at a bargain," and, secondly, dealing in a great variety of lines, in anything and everything, in fact, needed in the daily life of mankind. All comes as "grist" to the man or "company" who has started out with the idea of building up a fortune on this line. In this manner the "department stores" have disorganized almost every line of retail trade hitherto followed exclusively, by imposing upon them and making obligatory the policy of "small profits," whether the "quick sales" come or not. Whether the people, the great masses of humanity, are benefited to an extent that compensates for this disorganization, or not, is not under discussion at present. Frankly, we do not believe that they are; but the fact remains, and the apothecary, in common with all other retailers, must confront it. These aggregations of capital have fixed the rates of profit in almost every line, and there seems only one alternative left the smaller dealers—either meet their rates or go out of business. Either make up your minds to imitate their methods, as far as possible, or to surrender the field to them completely.

How far the retail drug trade of to-day can go in the direction of meeting the prices of these concerns is a question; but the apothecary has at least more chance in the struggle for existence than has any other class of retailers. Regarding him simply as a merchant, his professional side apart, as a class the apothecary is more intelligent and better educated than the grocer, the haberdasher, the shoe dealer, the tinner, and other affected tradesmen. This in itself is a tower of strength. As regards his professional side, while some of the "stores" have even attacked him there, and invaded his business to a certain extent, by putting in prescription departments, presided over by competent men—or men declared competent by the proper authorities—still we think that the influence of the store in this direction has been overrated. Hence, in the development by the apothecary of the policy of "buying closely and selling closely"—which is only another version of "quick sales and small profits"—there is one department of his business in which everything that savors of "cut-rates" should be avoided—the prescription counter. Here everything suggestive of cheapening either material or labor should be most vigorously excluded. In this the apothecary can maintain a fair and remunerative scale of prices, covering the cost of drugs, the salary of the dispenser, and even the value of his name and reputation, with a reasonable profit over it all, and in so do-

ing have the countenance and support, not merely of the medical profession, but of the great public as well, and especially that portion of the public whose opinion is of pecuniary value.

Said a gentleman to the writer but a few days ago: "If I were to carry a prescription into any reputable pharmacy, and were told that it could not be filled with pure drugs, by a competent man, for less than a certain sum, it would produce an effect on me to such an extent that, if my circumstances were such, or for any other reason whatsoever I was compelled to carry the prescription to a cheaper man, I should always feel that the latter had cheated me." This sentiment, or mode of thinking, is far more general than is imagined by pharmacists, as we have satisfied ourselves by questioning and observing the better class of patients.

Then, too, the pharmacist has, or should have, firm friends and allies—at least against the department stores in this direction—in the great body of physicians. What medical man of any reputation or standing would care to have his prescriptions taken to the dispensary of a department store? The great majority of physicians look with suspicion upon a druggist who has the reputation of cheapness in his prescription department. The physician, of all men, knows that the mere prime cost of the articles entering into a prescription is the very least of the items to be considered in fixing the price of the preparation. He takes into consideration the value of the time of the dispenser, the running expenses of the establishment, including the interest upon hundreds and hundreds of dollars' worth of drugs used probably once a month or once a year, something, by the way, that the penny-a-liner, always ready with some pointless witticism at the expense of the druggist, never thinks of. In making your prescription tariff, therefore, shun the "small profit" idea. Don't be afraid to make a just charge and to maintain it after it is made. The greatest "kicker" that lives will respect you for telling him that it is your ultimatum.

Discretion in the matter of "small profits," to come back to our subject, whether made to induce "quick sales" or not, has a very important bearing upon the success of the pharmacist as a business man. The price of no article should be needlessly cut. There are certain articles that will sell at one price as soon as another—articles seldom or comparatively seldom needed, and then only in an emergency, to relieve instant pain, a toothache or a colic, for instance. What object can there be in cutting the price of such articles? And yet, under the foolish idea of making a reputation for low prices, these very articles are those frequently chosen to exploit the doctrine of "quick sales and small profits," as the following, which happened in this city recently, instances:

There is a certain proprietary article, a toothache cure, which costs 60 cents a

dozen, and retails for \$1.22, and thus gives a nominal profit of 55 per cent. This article is efficient, and has an excellent sale, as such things go. Very recently a broker, or middleman of some sort, got hold of a gross or two of the article in trade, and sold them to a certain local retailer at 36 cents a dozen, or 3 cents a package. The purchaser at once concluded "to give the public the benefit of his bargain," as the department people say, and cut the selling rate in half. He put up notices to this effect: "So-and-so's toothache drops only 5 cents a bottle—others charge you 10 cents," and awaited results, confidently expecting "quick sales" to follow his declaration of "small profit." It is scarcely necessary to add that he was mistaken. The "quick sales" did not materialize.

Had this retailer exercised judgment or discretion, he would have reasoned that "toothache drops" is not an article that will sell simply because it is cheap, nor is it one of which persons are apt to lay in a supply, for "a few drops go a long way" with it. Besides, when a person comes into the shop suffering with toothache, he is in search of relief, not bargains, and will pay ten cents for it as quickly as he would five. He will not haggle over a nickel, and still less is he apt to go off to hunt a place where the remedy is cheaper. Consequently this wise dealer threw away a clean profit of 7 cents a vial, which he might have had, and got absolutely no benefit in return—not even the poor little advertising usually supposed to follow the announcement of "cut-rates." Worse than this, unless he can get a fresh supply, after this lot is exhausted, at the same price (which is not at all likely), he will have to go back to the regular rate, or sell at a loss.

Buy closely—and sell closely, if you must, and it seems that you will be compelled to do this, but in so doing keep every faculty awake, and remember that judgment and discretion are, after all, the winning cards.—*National Druggist*.

Two Lubins.

As the result of an action brought by the proprietors (Paul Prot & Co.) of the Paris House of Lubin, an M. Claudius Lubin, of Lyons, has been prohibited from using his surname unless prefixed by "Claudius," and followed by his address at Lyons. In the course of the trial several interesting facts came to light. It appeared that Felix Prot (father of the present head of the firm) was apprenticed to Lubin in 1824, three years after M. Lubin had been appointed perfumer to the king of England.

Spinol is the name given to a fluid extract of the fresh leaves of spinach. The liquid is said to contain $\frac{1}{4}$ of 1 per cent. of phosphoric acid, besides about one-tenth that amount of oxide of iron.

The Science of Optics.

By LIONEL LAURANCE.

Entered according to Act of Parliament in the year 1896, by Lionel Laurance, at the Department of Agriculture.

Primary Ametropia.

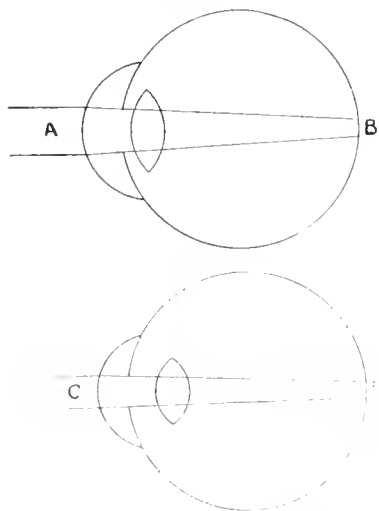
Hyperopia—derivation : Greek—*Huper*, beyond ; *Ops*, Eye ; or Hypermetropia—*Huper*, beyond ; *Metron*, measure ; *Ops*, Eye.

H., or far sight, is by far the most common condition of Am. It is said that the great majority of children are born hyperopic, and of these a certain proportion remain so. Thus H. is a state of insufficient development, and is essentially a congenital defect, and very frequently it is hereditary.

Without doubt more than one-half the eyes in the world are in this condition, varying from a degree so slight that it does not amount to 18 D., and so is considered normal, down to what is known as microphthalmos, where the eyes are abnormally small. The hyperopic eyes are generally smaller and flatter than the normal, with quick motor movements, but the outward appearance is by no means a true guide to the refractive condition, as, on the contrary, it sometimes happens that they look larger and fuller than usual on account of the bones surrounding the globes receding and the palpebral openings being great.

In Em. the dioptric system and the axial length are in harmony ; in Am. they are not ; thus in H. there is either :

1. The refractive power of the eye deficient so that the focal length is longer than the normal ; this is refractive H.
2. The globe of the eye too short, so that the axial length is shorter than the normal ; this is axial H. It follows if the refractive power be deficient proportionately to the length of the eye, or if the eye be too short proportionately to its refractive power, that in either case parallel rays of light reach the retina before coming to a focus, so that the effects of the two are precisely identical.



In figure 32 the eye has the normal axial length from A. to B. of nine inches

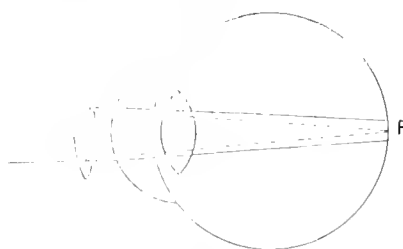
(22.231 MM.), but owing to the flatness of the cornea the refractive power is something less than 50 D., so that parallel rays of light are refracted not sufficiently, and they impinge upon the retina before coming to a focus—refractive H.

In figure 33 the refractive power of the eye is normal, being equal to 50 D., so that parallel rays of light are refracted to a focus at the proper distance, but the length of the eye from C. to D. is somewhat less than nine inches, and, therefore, these rays impinge upon the retina before coming to a focus—axial H.

As the effects of both conditions are identical, so also are the symptoms, the testing and the correction, and, therefore, for convenience, all H. may be looked upon and considered refractive, and it will be so discussed now.

The normal eye has 50 D. of refractive power, derived from its dioptric media, and this quantity just suffices for bringing rays of light from ∞ to a focus on the retina. The hyperopic eye is short of this quantity ; it has, say, only 47 D., and the correction is very easily reckoned, it is that + lens which, added to the eye, makes the total refraction normal. So in this case the correction is a + 3 D. lens (47 D. + 3 D. = 50 D.), and the defect is H. 3 D. The number of the correcting lens representing also the extent of the defect.

In H. 3 D., if a + 3 D. lens be placed in front of the eye, those rays of light which previously reached the retina before focussing, forming there circles of diffusion, are by the + lens rendered so much more convergent that they come to sharp focus just at the retina.



In figure 34 the black lines represent parallel rays of light refracted by the media of the eye only, and therefore impinging upon the retina too soon, making circles of diffusion ; the dotted lines represent the same rays refracted by the + lens L. and the media of the eye, so that they impinge on the retina just at their focus F.

It is clear that if parallel rays of light fail to focus on the retina in H., the sight of a hyperope would be very defective, and he would not be able to make out the details of any object ; such would be the case, but the refractive defect is overcome by the employment of Ac., making the quantity of total refraction normal, or

at least partly so. Thus a hyperope of 1 D., having 49 D. of refraction in the eye, exerts constantly 1 D. of Ac. for seeing distant objects ; this auxiliary refraction, added to the static refraction, makes a total of 50 D., the quantity needed to bring distant rays to a focus at the retina.

It must be clearly understood before attempting or pretending to test V., that if a person be at a distance of twenty feet from the test card and he reads the number twenty line that there must be then engaged exactly 50 D. of refractive power, and that neither one-quarter of a diopter more nor a quarter less than this quantity would allow of V. being sharply = $\frac{20}{20}$.

In testing the sight, the client being at the proper distance, you record the V. of the one eye and that of the other, and then proceed to determine the defect. In a certain case suppose that V. = $\frac{20}{20}$ in the one eye, and is therefore normal. Now, from what has just been said, it is evident that 50 D. of refractive power only could give that amount of V., and so either the refraction is equal to that quantity and is also normal, or Ac. is exerted to the extent of the deficiency.

Which it is can be quickly proved. You put in front of the eye that is being tested a weak + sph. lens, say 0.50 D., and if the client still sees through the lens the number twenty line, it is very obvious that now, including the power of the lens, the total refraction is only 50 D., and that therefore previously he was exerting Ac.

This fact of a weak + sph. lens not blurring V., it being equally good with the lens as without it, determines positively the existence of H. As a matter of fact, you cannot improve on normal V., and the great majority of hyperopes have V. = $\frac{20}{20}$.

You will note now that V. can be normal and yet the eye defective, and may be to a very considerable extent.

You note the visual acuteness without any lens, and you find it, say $\frac{20}{60}$ or $\frac{20}{80}$, or even $\frac{20}{120}$; then you place in the trial frame (the other eye being covered by the disc) a + 0.50 D. sph. lens and make the inquiry, "Does this blur?" and if the answer be in the negative, then H. is determined.

If V. = $\frac{20}{20}$ without a lens, then Ac. is exerted to the full extent of the error, if it be less than $\frac{20}{20}$ the Ac. is exerted, but not sufficiently to hide all the defect, still in every case of H. it is brought into play for distant V.

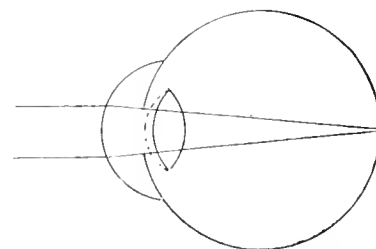


Fig. 35 represents a hyperopic eye in which parallel rays are brought to a focus



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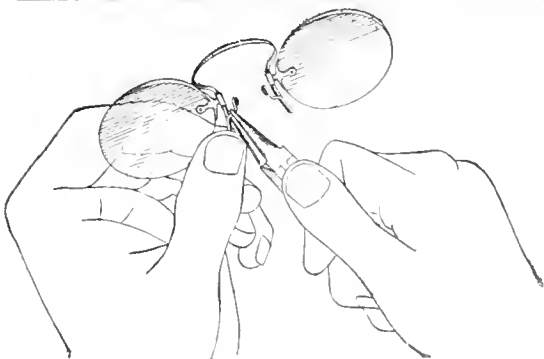
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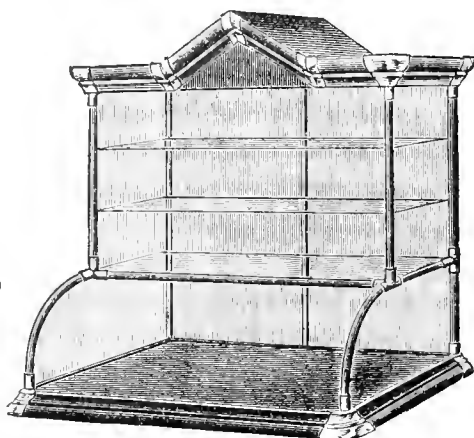
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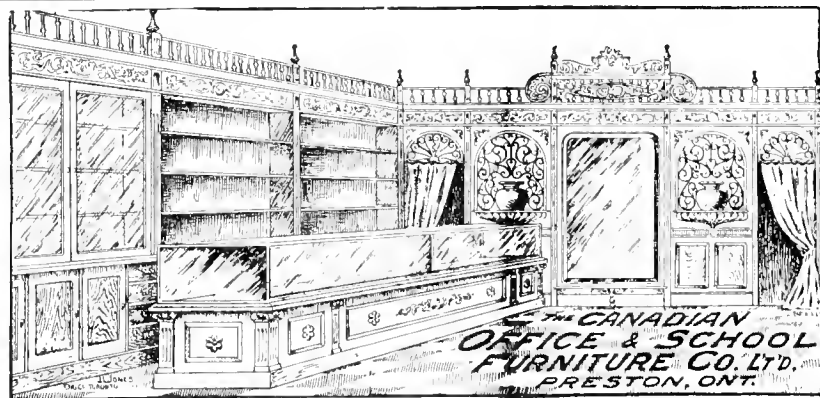


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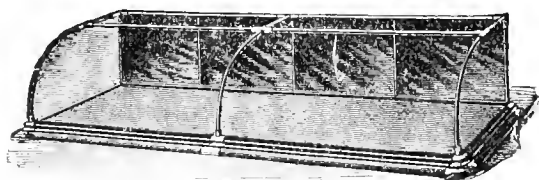
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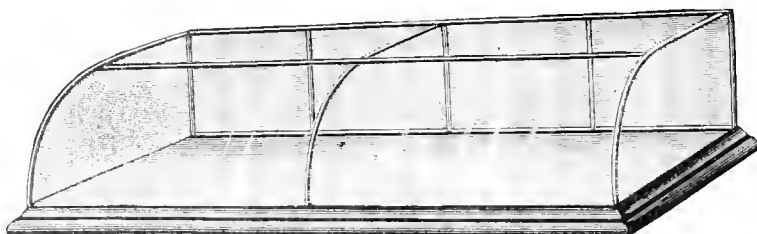
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at the retina by the aid of Ac., the anterior surface of the crystalline being in the condition shown by the dotted lines. If a + sph. lens be placed in front of the eye, the Ac. relaxes to an extent equal to the power of the lens, the anterior surface of the crystalline taking the position of the black line.

Having determined a case as being H., proceed to increase the strength of the lens until you find one that makes V. worse than it was with one previously tried; you then go backwards until you are sure that you have the strongest that does not blur; this is the correcting lens. If V. without a + lens = $\frac{2}{30}$, the correction is the strongest + sph. that does not make it worse. If V. = $\frac{2}{30}$ without a lens, the correction is the strongest + sph. that still leaves it = $\frac{2}{30}$, or makes it better. If V. is less than normal without a lens, the correction is the strongest + sph. that makes it = $\frac{2}{30}$, $\frac{2}{15}$, or the best obtainable.

It should be clear that, if H. is partially or totally overcome by employing Ac., anything less than the strongest + sph. can only be a part of the correction. You can prove it in this way. H. is itself a condition in which the eye has less than 50D. of refraction. You can make yourself hyperope by putting on a pair of Cc. lenses, say -2D., thus reducing the refractive power of your eyes. Through these you will almost certainly (if not too old and have eyes that have fair distant V.) be able to read the 20-foot line at that distance, this is done by using 2D. of Ac., and you are, with the lenses, precisely the same as a hyperope of 2D. Now, over these glasses place a pair of +0.50D., and you will see the 20-foot line, perhaps a little more clearly, and if you gave as the correction in H. the weakest lenses that make V. normal these would be about the number that you would select. You know, however, that nothing weaker than +2D. lenses can be the correction, and you will find that if you gradually increase the strength of the correcting lenses that +2D. will be found the strongest that do not blur, always providing that your eyes are nearly normal (which, however, most likely they are not). In fact, on the same reasoning, if the correction were not the strongest + sph. lenses which make V. = $\frac{2}{30}$, then in the majority of cases of H. no correction at all could be given, as V. generally = $\frac{2}{30}$ without lenses.

After having selected the strongest + sph. that makes V. = $\frac{2}{30}$, or the best V. obtainable for the one eye, leave that lens in the frame, and change the frosted disc so as to cover the eye you have just tested, and determine the defect of the other; if it be hyperopic, proceed in the same way to find the strongest + sph. through which V. = $\frac{2}{30}$, or the best obtainable. By fitting each eye separately you arrive at the proper lens for each, correcting any difference in the refraction of the two.

So far, you will have tested the monocular V., and have now to consider the binocular V. In a previous chapter it

was pointed out that when Con. is employed Ac. is also, and that when Ac. is exerted so also is Con., and that the more the one function is brought into action the more the other is. You also know that the hyperope sees distant objects by means of Ac. When one eye is covered over, and the customer is looking at the distant type and trying to discern the letters, he converges the eyes, but as the one is obscured by the disc being in front of it he does not see double, but he exerts more Ac. on account of this Con., and, therefore, does not accept so strong a + sph. lens as he might.

When the disc is removed and the two eyes directed to the distant test-card, Con. cannot be exerted without seeing double, and, therefore, the Ac. is more relaxed, consequently you can in H. increase the strength of the lenses when both eyes are used beyond that which is given to each eye separately.

The best way to do this is to hold in front of those lenses already in the frame a pair of weak + sph. lenses, say, 0.25D., and, if these do not make V. worse, increase their strength until you again find the strongest that leaves V. as good as it was without them.

In a given case, say that O.D.V. = $\frac{2}{30}$ with +1.75D. and O.S.V. = $\frac{2}{30}$ with +1.25D., and that the two eyes together can read the 20-foot line quite clearly. You hold in front of these lenses pairs of other weak + sphs. and find that +1D. blurs the sight, but that through +0.75D. V. still = $\frac{2}{30}$; then you add this power to each lens so that the correction is O.D. + 2.50D. + O.S. + 2.00D.

The amount of the increased power that you can give depends on the amplitude of the Ac., and as this is greater in youth than in old age it follows that the younger the person the more you can add to the strength of the lenses when the two eyes are engaged in V. You will find that you can generally give +0.50 to +1.00D. increase in this way. The true correction of H. is the strongest + sph. lens which each eye accepts when the two together are employed in the act of V.

Toxic Amblyopia.

By W. E. HAMILL, M.D., Toronto.

Three cases which proved to be toxic amblyopia have recently in a few weeks been referred to me, leading one to think that this affliction is of much more frequent occurrence than the authors of ophthalmology state—a natural conclusion when due allowance is made for the additional cases which must present to specialists of larger observation and possibilities.

Toxic amblyopia, when early recognized, being so very amenable to treatment, and yet when overlooked so lamentable in results, prompts me to direct the attention of the general practitioner thereto, with the hope that in a simple way cases which ordinarily first come under their notice

may be speedily saved from further ravages on such an important function as that of vision. When the cause and cause is detected it is generally conceded by authors that whatever of sight remains, be it ever so little, can be preserved, and in the majority of cases much improved—sometimes normal vision being restored, a happy and by no means rare termination under appropriate treatment early administered. How important, therefore, it is to discover the cause before organic changes take place. As the name (toxic amblyopia) implies, it is simply a progressive loss of sight due to some substance being absorbed into the system, which toxic element or poison has a selective action upon the optic nerve or its cerebral origin.

There is a long list of substances which possess this property, some acting purely in a temporary functional disturbance of sight, while others produce a permanent organic change, which, if continued sufficiently long, may terminate in almost total blindness. Cases are on record from competent observers where amblyopia was produced in idiosyncratic cases from chocolate, quinine, iodoform, alcohol, and some others, with such clearness that of cause and effect there could be no doubt. Perhaps, with the exception of alcohol, all the above show themselves in the suddenness of the appearance of the diminution or loss of sight, and its rapid restoration a few days later either partially or wholly; hence the history of every case should be fully analyzed, especially in regard to probable causes. But my personal experience for the past three years has been that every case of toxic amblyopia which came under observation has been due to tobacco, either alone or in conjunction with alcohol, in one form or other, so that we would not be far astray if we called all cases of toxic amblyopia tobacco amblyopia; and, further, each case had been using tobacco for a number of years, so that the ages of the victims ranged from thirty-five to fifty, with one or two exceptions, and all were the male sex, and both eyes were affected at the same time; the first general complaint being that their sight was hazy or misty, with inability to read as formerly, each of these symptoms gradually becoming worse and worse. It is just at this stage a tobacco amblyope, not suspecting the cause of his trouble, as he probably has been using the weed for years, will go to his family physician for advice or to the optician for spectacles, and fortunate the patient who consults the one or the other who recognizes the cause of the trouble, and firmly insists on immediate abstinence from tobacco, or refers the case to an oculist. If nothing more were done than to secure a positive "swearing off," the main feature of restoration and best line of treatment is secured. There is no choice of the patient in this matter; it is either "stop tobacco" entirely or the results are sure to be from bad to worse.

If, in addition to the symptoms pointed

out in a tobacco user, he also has central color-blindness for red and green, *i.e.*, inability to distinguish between the two, the diagnosis is complete as far as possible, without a further use of the ophthalmoscope and perimeter, unless we use the "pin hole" test, a simple means of distinguishing between amblyopia and ametropia, a method every optician who attempts refraction should be familiar with, and thus in some measure recognize where he (the optician) should step out and the physician or oculist step in.

In conclusion, let me report one of the recent cases which came under observation. Male, farmer, aged fifty-four, family history entirely negative, smoked approximately two 10-cent plugs of tobacco every week for years. Loss of vision commenced three years ago, and gradually became worse; frequently had medicine from his family physician without benefit, and could obtain no glasses to assist vision after many and repeated trials. At the time of my examination he could barely read 1-60, and for many months was unable by any method to read a newspaper. The history and objective examination left no doubt whatever of the cause of his almost blind condition, and yet no one had ever previously even suggested to him that tobacco was at the bottom of it all. There is little hope here of much restoration of sight, and sad reflection of what it might have been.

Advertising.

Practical Hints on Advertising.

Copyrighted, 1896, by CHARLES AUSTIN BATES, New York.

I don't believe very much in indirect advertising. Once in a great while somebody makes a "strike" by doing it, but I believe that nine out of ten of these efforts are not profitable. This is more particularly true of a small business than of a large one.

A scheme of this kind which has been successfully worked was that of the importation of a horseless carriage by a New York firm. The carriage cost a lot of money, but it made a sensation. It was the first horseless carriage ever brought to this country—the first one ever seen on the streets of New York. It was more than an advertising novelty. It was the introduction of a really useful and practical invention. This secured for the idea thousands of dollars' worth of unpurchasable advertising in the best newspapers.

That sort of enterprise is good, but it is only good occasionally, and then in cases where the cost is very small in comparison with the total advertising expenditure.

* * * *

Suppose it cost twenty-five hundred dollars to get the horseless carriage on to the streets. It isn't at all hard to spend

that much money in one day's advertising in New York.

Take two full columns of the *Herald*, for instance—something like six hundred lines, at a minimum cost of perhaps two hundred and fifty dollars. With extra charges for display, the space might be made to cost twice as much. Two columns isn't a large space, and the *Herald* is only one paper out of ten or fifteen.

The free reading notices given to the horseless carriage would undoubtedly occupy several times as much space as twenty-five hundred dollars would pay for. A scheme of less magnitude or less merit wouldn't get any reading notices at all, and would consequently be a fizzle nine times in ten. If you add to the expense of the scheme the expense of paying for your own reading notices, it makes as unprofitable a bit of advertising as you can well get into.

* * * *

Schemes are good when they are good; but nine hundred and ninety-nine out of a thousand are not good, and the thousandth one should be looked at very critically. It is a safe and profitable plan to let them all alone, and to stick to methods of advertising which carry the story direct to possible buyers.

* * * *

Advertising is a great deal like the game of poker. The man who works schemes for the purpose of getting a lot of publicity for a comparatively small cost is very much like the "bluffer" in a poker game. The "bluffer" and the man who "plays things high" will win a great deal when they win, but I have noticed that the "chase" player generally cashes in the greatest number of "chips"; and, when he loses, doesn't lose very much. Originality and novelty are good things in their way; but good, common, hard horse sense is better.

* * * *

I have known several instances where merchants gave free tickets for a pleasure trip of some sort or other "with every purchase."

Maybe it pays, but I doubt it. If the trip costs the merchants anything, I don't believe they can possibly get their money back. It advertises them a little, to be sure, but would not the same amount of energy and money spent in the newspapers pay better? I think it would. I have watched the progress of a great many schemes like this, and only one in a hundred pays.

* * * *

The cordial and persuasive gentlemen who sell advertising novelties have many good arguments. They say that people appreciate a small gift; that the greatest desideratum in life is to get something for nothing. I don't believe that this influences grown-up folks, although it may work with children. I've tried giving a baseball and bat to every purchaser of a suit of boy's clothing. It seemed to work

pretty well. Every other clothing house in town was giving away something then. Several gave balls and bats, but the ones we used were bigger and better than any of the others. That made a difference—had some weight with the juveniles, but it wouldn't if the prices and goods had not been just right. I am sure that even in this case the money would have been better spent in the papers.

Indirect publicity does good. No doubt about that, but when it costs the same as direct advertising it is not to be considered.

* * * *

The effect of giving something away is ephemeral. The gift doesn't convince. It doesn't prove anything. Advertising in the newspapers is a legitimate expense. It is done for the purpose of telling readers where they can get certain things. The advertisement conveys desirable information. It asks for custom openly and without pretense. The best advertisement does not try to make people believe that the store is a charitable establishment. There is no nonsense about it. It says, "We want your trade because there's a profit in it." It is a straight, fair, business proposition.

* * * *

Giving something away is an effort to get some advertising in an indirect way. There is a string attached to the gift. Don't imagine for a single minute that the public doesn't see it.

The gift is given in the hope that it will bring business enough to pay for itself and make a profit besides. That is perfectly plain, else why should a business man do such things? It isn't charity that prompts him, nor even cordiality and "good-will toward man."

A hotelkeeper at Coney Island once threw away some five thousand dollars in silver coin. He said that he did it to advertise himself, and that he would make a million dollars by doing it. The experts who examined him said it was paresis that ailed him.

* * * *

The offering of prizes for the best advertisement for a local store, to be competed for by any given class of people, or by the whole community if it is thought best, will always arouse more or less interest.

It is not a direct way of selling goods, of course, and about once a year is often enough to use it. This scheme belongs in the same general class as window shows of various kinds. They are all right if they are not indulged in too extensively.

Didymin—A product of organo-therapeutics, obtained from the testicles of bulls.

Splenin is another organo-therapeutic novelty.

A. W. PORTE.

S. R. PARSONS.

COUGH DROPS.

MENTHOL,
GOLDEN, OVAL,
B.F.P.

LICORICE LOZENGES
COATED LICORICE LOZENGES
STICK LICORICE
BREATH PILLS

WINTERGREEN LOZENGES
MUSK LOZENGES
ROSE LOZENGES
MINT LOZENGES



TORONTO BISCUIT AND CONFECTIONERY CO.



— FINE ENGLISH TABLETS —

BLACK CURRANT
HOREHOUND
PINE APPLE
LEMON
RASPBERRY

STRAWBERRY
ACID
LIME FRUIT
BARLEY SUGAR
BUTTER SCOTCH

ROSE AND HONEY
CHOCOLATE
ASSORTED ROCK
MIXED FRUIT

ORANGE AND LEMON SLICES.
COCOANUT NIBS.

DRUGGISTS' CONFECTIONERY.

7 FRONT ST. E.

TORONTO.

A Perfect Toilet Gem.

Areca Nut Tooth Paste

The drug trade of Canada will find this one of the most satisfactory articles on the market. The package is convenient and attractive.

Kindly make sure the ARECA NUT TOOTH PASTE offered you is made in WINNIPEG. The genuine is for sale by

Lyman Bros. & Co., Toronto.
Elliot & Co., Toronto.
Evans & Sons, Montreal.
Lyman, Knox & Co., Montreal.
Lyman, Sons & Co., Montreal.
Kerry, Watson & Co., Montreal.
J. Winer & Co., Hamilton.
J. A. Kennedy & Co., London, and by

THE

MARTIN, BOLE & WYNNE CO.

WINNIPEG.

PRICE LIST



Common Sense Exterminator FOR ROACHES

25c. each, \$1.75 doz.; 50c. each, \$3.75 doz.; \$1.00 each, \$8.00 doz.

Common Sense Exterminator FOR RATS AND MICE:

15c. each, \$1.00 doz.; 25c. each, \$1.75 doz.; 50c. each, \$3.50 doz.; \$1.00 each, \$8.00 doz.

Only infallible remedy known. No smell from Dead Vermin. Not Poisonous to man or beast. Once used always recommended. Sold by Wholesalers at

MONTREAL, TORONTO, and LONDON.

Common Sense Mfg. Co.,

523 King Street West, Toronto.

Manufacturers of Common Sense Stove Polish and Common Sensoline Bicycle Lubricator.

W.A. GILL & Co. COLUMBUS, OHIO, U.S.A.



For sale at Manufacturers Prices by the leading wholesale druggists and druggists' sundrymen throughout Canada.

Complete Illustrated Price List free on Application

THE UNIVERSAL GRANDALL

— NO. 3 —



Just Out

Writing in Sight.
INTERCHANGEABLE TYPE.
PERMANENT ALIGNMENT.

THE LATEST IMPROVEMENTS!
WHAT MORE CAN YOU ASK?

Write for catalogue.

THE GRANDALL MACHINE CO.
GROTON, N.Y.

TEABERRY FOR THE

HARMLESS
CLEANSING
TEETH

ZOPESA CHEMICAL CO.
TORONTO 25c.

FOR SALE BY ALL JOBBERS

White Violet

A New & Lasting Perfume
For the HANDKERCHIEF.

John Taylor & Co.
MANUFACTURING
PERFUMERS
TORONTO.

Christmas Perfumes

Before placing your order please inspect our Samples. New styles Leatherette Embossed Boxes, also Fancy Imported Boxes, very suitable for Christmas Gifts.

JOHN TAYLOR & CO.
← Perfumers →
TORONTO.

Dominion Art Woodwork Co., **Toronto Junction**

Art Woodwork Dwellings
FOR INTERIORS OF Stores AND
Public Buildings
Show Cases

OF EVERY DESCRIPTION
Piano and Church Organ Keyboards, etc.

SEPARATE
ESTIMATES
GIVEN ON
CARVING
IF DESIRED

"St. AUGUSTINE" Registered at Ottawa.

Our "St. Augustine" (Registered) is the perfect wine for communion or invalids. Your wine merchant can supply you at \$4.50 a case, one dozen quarts. See that you get the genuine article. All good articles are counterfeited. See that our name is on label and capsule.

Our "St. Augustine" (Registered), of 1891 vintage, a choice sweet, mild wine, and equal to imported wines at double the price.

J. S. HAMILTON & CO.
BRANTFORD

Sole Agents for Canada for the Pelee Island Wine Company

HERE'S A SELLER SPOONER'S POWDERED **PHENYLE**

DISINFECTANT, DEODORIZER, and GERMICIDE.

Genuine good article. No Liquid compares with it. Prevents contagious diseases, kills germs. Indispensable with people understanding sanitary requirements. Don't buy any other for safety's sake. All Druggists sell it. Holds Prof. Ellis' certificate.

LYMAN BROS. & CO., Toronto.
ALONZO W. SPOONER, Mfr., Port Hope, Ont.

"We believe cutting of prices detrimental to our interests."

Druggists

Who will sell Manley's Celery Nerve Compound and Indian Woman's Balm at the regular prices are authorized to guarantee the preparation to give satisfaction or refund the money and reclaim same by addressing

The Balm Medicine Co., Ltd.
71 Victoria St., TORONTO

Ginseng Root

We want your Ginseng and will pay highest market values. Write us for quotations.

Bach, Becker & Co.

Dealers and Exporters of Raw Furs and Ginseng

103-107 Michigan St.,
CHICAGO, ILLINOIS

Formulary.

ANTISEPTIC COLOGNE.

Rectified spirit	112 ounces
Extract of orange flower	9 "
Oil of orange	14 ozs.
Oil of lemon	14 ozs.
Oil of neroli petals	1 ounce.
Tincture of ambergris	1 "
Tincture of musk	1 "
Oil of bergamot	4 drachms.
Oil of rosemary	4 "
Oil of cinnamon	2 "
Otto of rose	2 "
Corrosive sublimate	1 drachm.
Chloride of sodium	1 "

Mix and filter.

Used in purifying sick-rooms, the floor, bedding, etc., should be sprinkled with this cologne.

DENTIFRICE POWDER.

Carbonate of strontium	30 grammes.
Flowers of sulphur	30 "
Eucalyptus oil	20 drops.
Cream of tartar, in fine powder	25 grammes.
Sugar of milk	40 "
Salicylic acid	10 "

Mix carefully.

—*El Memorandum.*

EUCALYPTUS TOOTHPASTE.

160 grms. precipitated chalk, 45 grms. soap-powder, 45 grms. wheaten starch, 1 grm. carmine, 30 drops oil of peppermint, 30 drops oil of geranium, 60 drops eucalyptus oil, 12 drops oil of cloves, 12 drops oil of anise mixed together and incorporated to a paste, with a mixture of equal parts of glycerine and spirit.—*Pharm. Post.*

BATH SOAP PASTE.

Soft soap	8 ounces.
Glycerin	1 ounce.
Alcohol, 94 per cent	4 drachms.
Oil of lavender	4 drops.

Mix the oil, alcohol, and glycerin, and carefully mix with the soap to form a paste.

PERFUME FOR FACE POWDER.

A fine aroma is produced by a mixture of 200 grms. violet-root powder, 15 gr. "betiver" powder, 15 gr. sandalwood powder, 20 drops oil of rose, 20 drops oil of neroli, 20 drops oil of sandalwood, and 3½ gr. musk grains. The musk is ground with the violet-root, and the oils and other ingredients incorporated with the mixture, the whole being left at rest for a few days for the scent to develop. One part of this perfume will suffice for 30 parts of powder (precipitated chalk, rice flour, magnesia, etc.). Artificial musk should on no account be used.—*Wiener Droq. Ztg.*

BASE FOR LIP SALVES.

Lanolin	6 parts.
Oil of sweet almond	1 part.
Distilled water	1 "

Mix. A little boracic acid, to prevent danger of rancidity, may be added to the above with advantage. —*Lamieson.*

ONIENT FOR CHAPPED SKIN.

Lanolin	3 ounces.
Glycerin	4 drachms.
Boric acid	1½ "
Salol	1 drachm.
Hoffman's anodyne	5 drachms.
Menthol	15 grains.
Oil of citronella	3 minims.

—*Journal de Praticiens.*

FURNITURE PASTE.

Turpentine	1 gallon.
Cerasin	2½ lbs.
Vermilionette (dry color)	2 ounces.

Shred the cerasin very fine, and dissolve with gentle heat.

FURNITURE CREAM.

Turpentine	1 gallon.
Cerasin	1 lb.

AN OINTMENT FOR RHEUMATIC JOINTS.

Salicylic acid	2½ drachms.
Oil of turpentine	2½ "
Lanolin	2½ "
Lard	3 ounces.

—*Journal de Praticiens.*

BLACK INKS FOR RUBBER STAMPS.

For general use:

	Parts.
Tannin, black	1
Water	1
Glycerin	2

Mix.

For textile fabrics:

	Parts.
Nigrosin	2
Methyl violet	4
Water	5
Wood vinegar	5
Alcohol	5
Glycerin	35

Mix and dissolve.

—*Bayerisches Indust. und Gewerbeblatt.*

NONMETALLIC BLACK HAIR DYE.

The following is given in the *Köl. H. Ztg.*:

	Parts.
Pyrogallie acid	35
Citric acid	3
Boro-glycerin	110
Water	1000

Mix and dissolve. If the black produced by this solution is not deep enough, add more pyrogallie acid; if too deep use a little less. The hair should be washed with some alkaline solution in the morning before applying the dye.—*National Druggist.*

GAWALOWSKI'S TOOTHACHE DROPS.

A. Gawalowski, of Brunn, the well-known chemist and writer on pharmaceutical matters, suggests the following, in the *Zeitschr. d. Allg. oöterr. Apotheker Vereins*, as an excellent toothache remedy:

	Parts.
Oil of clove	10
Sandalwood oil	20
Cressole	30
Peppermint oil	10
Chloroform	20
Alcohol	200

Mix and dissolve. Moisten a plug of cotton, and put into the hollow tooth. It will stop pain in a few seconds.

EUCALYPTIC SHAMPOO.

(An ideal hair wash.)

	Ounces.
Glycerine of borax	2
Esprit menthol	2
Solution of ammonia	3
Extract of roses	3
Fluid extract of quillaia	5
Esprit eucalyptus	10
French rose water	15

Mix. Allow to stand for twenty four hours, then filter.

Photographic Notes

Exposure in Photography.

By REV. A. H. BLAKE, M.A.

This is a fearsome question which meets the beginner on his first entry into the field, "How long shall I expose?"

Here is the camera in position, the view focussed according to taste, the dark-slide in position, and its shutter withdrawn, the hand ready on the cap, and to the question of the mind, "I wonder how long I ought to take it off for?" there is no reply, no data upon which to form one, and only blank ignorance of the conditions to be observed and the rules which should guide the hand in making the exposure, and so it is just chance work. Off goes the cap for so long, just at haphazard, and with an eager hope that all may be well, though there are great misgivings as to whether the time has been long enough or too long and no feeling of security or certainty at all.

Now we propose to come up to the beginner's elbow just at this moment to bid him take out his note-book and make certain calculations, and then, after arriving at a result, to take the cap off for the determined period with a feeling of assurance that, bar unforeseen accidents, all must be well, and the errors of exposure so slight as to be easily corrected, if necessary, in development, and to have reached a stage where to lose a plate through wrong exposure shall be the exception; whereas before the opposite state of things pertained, and he considered himself lucky if he got three out of six of his plates correctly exposed and decently developed into a negative of presentable quality.

One of the chief elements in exposure is the distance of the object to be photographed from the camera.

As a rule, the further off objects to be photographed are, the shorter will be the exposure required, although it will be by



Winter

With its Balls, Dances, and Parties, brings you many new customers for Teaberry. We are helping you to secure more customers this year with increased advertising. We are running this series of "ads." in the best papers all over Canada. Order from your jobber.

Zopesa Chemical Co., - Toronto, Can.

FREE

Send us your name and address, and mention this paper, and we will mail you **FREE** a copy of "Selections from Good Advertising." All we ask is that you send us 10 cents to pay cost of mailing.

"Selections from Good Advertising" is a well-printed book of about 100 pages. It contains 12 chapters taken from Charles Austin Bates' 700-page book "Good Advertising," which sells for \$5.

"Selections from Good Advertising," which we now offer **FREE**, is the same book we have advertised in this paper heretofore for 50 cents.

If your 10 cents gets here after all the books are gone, we will send your money back.

THE HOLMES PUBLISHING CO.,

15 & 17 Beekman St.,

NEW YORK.

JOSEPH E. SEAGRAM

Waterloo, Ontario.

MANUFACTURER OF

ALCOHOL

Pure Spirits

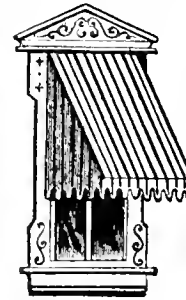
Rye and Malt Whiskies

"OLD TIMES" AND "WHITE WHEAT"

Awnings

AND

Window Shades



FOR
**HOUSES, OFFICES,
AND STORES**

Made by experienced workmen and of the best materials, at prices as low as is consistent with good work and materials.

ESTIMATES FURNISHED.

Wm. Bartlett,
16 Adelaide St. West,
TORONTO.

"DUNRAVEN" 10c.

"F. & S." 5c.

These are both very high-class Cigars.

Fraser & Stirton,

Send for Sample Order.

LONDON, Ont.

"Mist" COUGH LOZENGES

SELL ON SIGHT
GOOD PROFIT . .

10cts.

THE KEY MEDICINE COMPANY,

395 YONGE STREET, TORONTO.



THE ALE AND PORTER OF



John Labatt, London, Ont.

RECEIVED

MEDAL and HIGHEST POINTS

Awarded on this continent at the WORLD'S FAIR, CHICAGO, 1895

MONTREAL—P. L. N. Beaudry, 127 De-
Lorimier Avenue.

TORONTO—J. Good & Co., Yonge Street.
ST. JOHN, N.B.—F. Smith, 24 Water Street.



If you want to sell the best, handle

MAJORS CEMENT CHEAP, QUICK, AND CERTAIN.

Repairs China, Glassware, Meerschaum, Bric-a-Brac, to put on cloth, corn and bunion plasters; to hold a bandage on a wound or sore finger. 15c., 25c.

Major's Rubber Cement, 2-oz. bottle, or in collapsible tubes, for repairing rubber boots and shoes, bicycle tires, rubber garments, silk umbrellas, etc. 15c.

Major's Leather Cement repairs boots and shoes, garments and umbrellas of all kinds of material except rubber, applied same as on leather goods. 15c.

Major's Liquid Glue repairs furniture, books. 10c.

•••
KERRY, WATSON & CO.,
351 St. Paul Street,

Sole agents for the Dominion. **MONTREAL, Canada**

ELLIOT'S "B" PARCHMENT PAPER

is one of the articles to be considered in the practice of "elegant pharmacy," as it furnishes the finest transparent wrappers for bottles, packages, etc. It must be seen and tried to be appreciated. We send samples.

ELLIOT'S PARCHMENT POWDER PAPERS

are the best for hygroscopic powders and all other powders. The following prices show they are the cheapest: Put up in Neat Boxes of 500 Sheets.

No.	Rm.	No.	Rm.
22 For Magnesia and general use.		31 Large Seidlitz, Blue, 6 x 6,	\$0.50
White, 6 x 8	\$0.65	40 Powder Papers, White, 2 1/4 x 4,	25
28 Regular Seidlitz, White, 4 1/2 x 5 1/4,	40	41 Powder " " 3 x 4 1/2	20
29 Regular " Blue, 4 1/2 x 5 1/4,	40	42 Powder " " 2 1/4 x 3 1/4	25
30 Large " White, 6 x 6,	50	43 Powder " " 3 1/4 x 4 1/2,	25

SEND FOR SAMPLES. Elliot's Parchments are for sale by the leading jobbers. We also make heavy Parchment for Sticky Fly Paper, and Druggists Pure Tin Foil.

A. G. ELLIOT & CO.

PHILADELPHIA.

FACT

DEAD

SURE

THE POOREST MAN ON EARTH

CAN BE CURED OF
THE TOBACCO HABIT
BY OUR METHOD

We offer by mail a Remedy that will FREE EVERY SLAVE to tobacco in ten days

Read the strongest endorsement ever given any remedy, and if you are not fully satisfied write for leaflet containing over 6,000 testimonials.

UNITED STATES HEALTH REPORTS (Official Endorsement June 19, 1895, page 10.)

"In the interest of the masses for whom these Reports are compiled, the United States Health Reports have examined and investigated many preparations having for their object the cure of the tobacco habit, but among them all we have no hesitancy in giving the editorial and official endorsement of these Reports to the remedy known as **Uncle Sam's Tobacco Cure**, manufactured by the Keystone Remedy Co., at 217 LaSalle Street, Chicago. We have demonstrated by personal tests that this antidote positively destroys the taste and desire for tobacco in ten days, leaving the system in a perfectly healthy condition, and the person using the same forever free from the habit.

"In the light of our examinations and tests of **Uncle Sam's Tobacco Cure**, we are but performing a duty we owe the public when we endorse the same, and stamp it as the crowning achievement of the nineteenth century in the way of destroying a habit as disgusting as it is common (for only \$1.00), hence we earnestly advise you to write them for particulars."

For Sale by all Wholesale Druggists

To one pound of glycerine add a quarter ounce of ammonia and let it stand a few days before using.

Add one ounce of the above to every fifty ounces of your fixing solution. Afterwards fix fifteen minutes and immerse the prints in a weak solution of salt and water.—*American Journal of Photography.*

REDUCING SOLUTION.—Dissolve one part red prussiate of potash in fifteen parts of water, wrap the bottle in yellow paper, to protect the solution from decomposition by light.

To a solution of one ounce hypsulphite of soda in fifteen ounces of water add from one half to one ounce of the red prussiate solution immediately before use. Watch the negative carefully, avoiding strong light during the operation, and remove it to running water immediately when sufficiently reduced.

The final washing should be a through one, as the chemicals, especially the hypo, are very difficult to eliminate from a gelatine film. Let the plates remain at least an hour in running water. If no hydrant is at hand, wash an hour, changing the water frequently.—*American Journal of Photography.*

German distillers are said to be turning out considerable quantities of oil of celery. The oil is extracted from the leaves, and possesses the pungent odor and taste of the plant itself. The yield of oil is about one per cent. of the green leaves distilled.

Sample Advertisements.

(From the *Trade Magazine*)

GET AN AXE

of your hardware man, silks of your dry-goods man, milk of your milk man. But pure drugs, good brushes, fine soaps, of

HEALTH & WEALTH

Druggists

Just what the Doctor Ordered.

That's what you'll get here every time in our prescription department.

We strive to deserve your utmost confidence. Nothing "cheap" here, but your money's worth every time.

SMITH'S
Drug Store.

Did You Ever Stop

to think how many and varied are the articles which are kept by an all round druggist?

Brushes for the teeth, brushes for the hair, brushes for the bath, brushes for the hands. Sweet scented soaps, sweet scented essences, sweet scented powders for the wardrobe. Hot water bottles, bottles for babies, and bottles of medicine till you can't rest. If you'd learn more about our variety you'd come here oftener.

Blue Light Pharmacy

FIFTEEN YEARS OF ACTIVE BUSINESS

As druggists in Smithville have made our name and label the synonym of honest services. . . .

To-day we are better equipped than ever before.

No other drug store can give better skill or better value to its customers.

S. W. Smith & Co.

Apothecaries

Good Drugs Are Expensive

Don't get the idea that our profits on prescriptions are big.

Our time is worth something; of course we make a profit on every prescription we compound. Not a big one, but enough to keep the business ball rolling and make the business fascinating.

We use good drugs—not a grain of unreliable drugs in the store.

We are very careful in compounding prescriptions. We do all in our power to furnish medicine that will secure the results desired by your doctor.

Health & Wealth

Druggists

Cement for Metals.

Several cements are used to make metals adhere either to wood or glass. We give two much-used recipes:

I.

Parts by weight.

Boiled linseed oil	6
Copal	6
Litharge	2
Powdered white lead	1

II.

Parts by weight.

Slaked lime	1
Brick dust	2
Boiled linseed oil	3

In each case all that is needed is to make a thoroughly homogeneous mixture of the ingredients.

AMERICAN CEMENT.

Parts by weight.

India rubber	10
Chloroform	6
Mastic	2

This size is also good for making glass adhere to other hard surfaces.

WHITE CEMENT.

Parts by weight.

Acetate of lead	40
Alum	40
Gum Arabic	70
Wheat flour	500

Dissolve the acetate of lead and the alum in a little water, and separately dissolve the gum arabic in a fair quantity of boiling water. Thus, if the 500 parts of wheat flour represent a pound, the quantity of water needed will be about a quart. The gum having dissolved, add the flour, put the whole on the fire, stir well with a wooden stick, then add the solution of acetate and alum. Continue the stirring in order to avoid the formation of lumps, then take it off the fire without allowing it to boil. This cement is used cold, and will not scale. It is very useful in making wood, glass, cardboard, etc., adhere to metals, and is extremely strong.—*Oils, Colors, and Drysalteries.*

Amongst the Wholesalers.

The Laughing Camera.



The laughing Camera is one of the latest novelties, and as a source of amusement has proved a great success. It is retailed at 25 cents and the sale has already proved it a success with dealers in fancy goods, etc. Nerlich & Co., 35 Front street west, Toronto, are offering it to the trade.

Choice Stationery.

Messrs. Warwick Bros. & Rutter are showing some very choice Stationery, suitable for the holiday trade, also a fine line of Stationers' Sundries suitable for the drug and novelty trade.

Special Prices in Trusses.

Messrs. Allan & Co., 132 Bay street, Toronto, are offering this month special values in Hard Rubber, Elastic and English Pattern Trusses. They are also offering rubber goods at close prices, and will be pleased to give quotations.

Surgical Instruments.

The attention of our readers is called to the advertisement of the well known

house of Powell & Barstow, 58 Blackfriars Road, London, England. This house was established in 1830 by W. Hurlstone & Co., of whom the present proprietors are the successors. Being manufacturers, they are in a position to offer at best prices all kinds of Surgical Instruments and appliances, and special lines of Druggists' Sundries, of which quotations will be furnished and price lists mailed on application.

Wall Paper.

This line of goods, which is largely handled by a number of druggists, may be made a very profitable one. The secret of it lies in the buying. M. Staunton & Co., Toronto, are large manufacturers of wall paper, and their prices and samples will be found right. Read their advertisement on page of this issue.

Fibre Chamois Vests.

A line which has taken remarkably well with the drug trade, and is meeting with ready sale, is that of Chest Protectors and Vests made with Fibre Chamois, both lined and unlined. They are made in a variety of styles and their low price commends them to the public. They are manufactured by the Ever Ready Dress Stay Co., of Windsor, Ont. See advertisement on page.

Always Gives Satisfaction.

The special attention of all chemists and dispensers is directed to what *The Lancet* says of Solazzi Liquorice Juice, which is advertised in THE DRUGGIST this month: "The dried extract of liquorice root, generally sold in sticks, has frequently been the subject of very considerable adulteration, the adulterant commonly found being entirely inert medicinally, and being in most cases some form of starch. The above brand has long been known to be of standard purity. We found the specimen to be completely soluble in water and entirely free from impurities of any kind. It is, therefore, well adapted for the pharmaceutical purpose for which it is so useful, while as a popular demulcent it is both safe and reliable.

Apenta.

Apenta is a well-known and much-esteemed purgative water derived from the Uj Hunyadi Springs, situated on the slopes outside Buda-Pest. Its composition in regard to its saline and active constituents, as far as we have examined samples obtained at different times and different places, is constant—a point of some importance, since the practitioner is thus enabled to prescribe definite quantities for definite results, and patients to rely upon a uniformity of medicinal action. The specific gravity of four samples taken at random at different times ranged between 1.039 and 1.041, which represents

but a slight difference in the amount of dissolved saline constituents. The mean composition in grammes per litre was found to be as follows: magnesium sulphate, 23.40; sodium sulphate, 16.32; sodium chloride, 1.81; calcium carbonate, 0.90; and calcium sulphate, a trace. There was a good indication of lithium. It will be seen that the magnesium sulphate is decidedly in excess of the sodium sulphate. The taste of the water is bitter, but is less disagreeable than it might be were the magnesium salt not distinctly in excess of the sodium salt. The magnesium salt is less nauseating, and as a purgative is of a generally milder character and less rapid in its action than sulphate of soda. Its medicinal effect is favorably modified doubtless by the fact of its being a natural water. The observation has frequently been made that artificially-made waters exhibiting approximately the same saline composition are not so beneficial as those derived from natural sources. This would appear to be true of purgative as well as chalybeate and alkaline carbonated waters.—*The Lancet*, 28th March, 1896.

Magazines.

Won't You Give Your Love to Me?

We have just received a copy of the above-named beautiful song with a splendid waltz chorus. It is now being sung in all the prominent theatres in New York, Boston, and Philadelphia. The following are the words of the chorus:

Won't you give your love to me and take my heart,
Ever to abide with yours alone, sweetheart?
There to dwell through all eternity—
Darling, won't you give your love, your love to me?

Price 40 cents per copy. All readers of our paper will receive a copy at half price by sending 20 cents in silver or postage stamps to The Union Mutual Music Co., 265 Sixth Avenue, New York.

The Great Jenny Lind Concert

Only a few remain who can recall the marvellous enthusiasm which attended Jenny Lind's first appearance in America, in the old Castle Garden, in 1850. When she arrived from England 50,000 people were at the dock to greet her. That night

"Surf" Sea Salt

is a new 150 pkg., put up in 1 doz. 5 lb. pkgs., per case, price \$1.10 per gross (12 cases) \$11. Wholesale houses sell it. Pkg. is a new patent cardboard one, and handsomely printed. Sales of first week in Toronto 120 cases. The salt is clear as glass and of a size that dissolves readily. It never gets damp, and contains no dirt or grit. Analyzes 99.92 per cent. pure salt. You can work up a good salt trade if you try. Why not do it?

TORONTO SALT WORKS, Toronto, Importers.

30,000 people serenaded her in front of her hotel. Seats for her concert sold at fabulous prices. On the night of her first American concert over 5,000 people had

WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc., will be inserted once free of charge. Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.

SITUATIONS WANTED.

WANTED, SITUATION BY CLERK, FIVE years' experience; passed Junior Examinations O.C.P., good references. B. M. Copeland, Box 62, Preston, Ont.

SITUATION WANTED BY DRUG CLERK, registered at the O.C.P., one year's experience, furnish best of references. Address, Drug Clerk, 158 Wilton Ave., Toronto, Ont.

SITUATION WANTED BY A YOUNG MAN with nearly three years' city experience. An A dispenser and stock-keeper, best of references. Address, Drugs, Box 132, Brantford, Ont.

SITUATION WANTED BY YOUNG MAN, MEDICINE, O.C.P., good experience, best references. Address, Box 238, Watford, Ont.

SITUATION WANTED AS DRUG CLERK, THREE and one-half years' experience, and one term at Ontario College of Pharmacy, references if required. Chemist, Box 96, CANADIAN DRUGGIST.

FOR SALE.

ESTABLISHED DRUG BUSINESS. ASPLINDID opening for a young man, moderate stock, light expenses, good location, will stand investigation. Address, B. R., CANADIAN DRUGGIST.

Southern Asthma Cure

(LIQUID)

CURES ASTHMA, ROSE
COLD, HAY FEVER, Etc.



The Best Remedy for Asthma

Ever Discovered.



Price, \$1 per bottle



JAMES A. KENNEDY & CO.,

WHOLESALE DRUGGISTS

342 Richmond St., - LONDON.

Wholesale Agents for the Dominion.

SEELY

The American Perfumer

We desire to notify the Trade that our representatives are now showing the Finest line of Holiday Perfumes and Novelties yet shown by them.

Every Druggist in the Dominion will consult his interests by making an effort to see the line.

If our Representatives do not call regularly on you, please notify us and we will arrange to see you.

WE SELL TO THE DRUG TRADE ONLY

SEELY MANUFACTURING COMPANY

—ESTABLISHED IN 1862—

Detroit, Mich.

Windsor, Ont.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to November 10th, 1896.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal.	\$4 37	\$4 65	Powdered, lb.	\$ 30	35	Myrrh, lb.	\$ 45	\$ 48
Methyl.	1 90	2 00	CARBON, Bisulphide, lb.	17	18	Powdered, lb.	55	60
ALLSPICE, lb.	13	15	CARMINE, No. 40, oz.	40	50	Opium, lb.	4 25	4 50
Powdered, lb.	15	17	CASTOR, Fibre, lb.	20 00	20 00	Powdered, lb.	5 25	5 50
ALON, oz.	40	45	CHALK, French, powdered, lb.	10	12	Scammony, pure Resin, lb.	12 80	13 00
ANODYNE, Hoffman's bot., lbs.	50	55	Precip., see Calcium, lb.	10	12	Shellac, lb.	40	45
ARROWROOT, Bermuda, lb.	50	55	Prepared, lb.	5	6	Bleached, lb.	45	50
St. Vincent, lb.	15	18	CHARCOAL, Animal, powd., lb.	4	5	Spruce, true, lb.	30	35
BAL AM, Fir, lb.	40	45	Willow, powdered, lb.	20	25	Tragacanth, flake, 1st, lb.	85	90
Copaiba, lb.	95	75	CLOVE, lb.	10	17	Powdered, lb.	1 10	1 25
Peru, lb.	3 75	4 00	Powdered, lb.	17	18	Sorts, lb.	55	70
Tolu, can or less, lb.	95	1 00	COCHINEAL, S.G., lb.	40	45	Thus, lb.	8	10
BARK, Barbary, lb.	22	25	COLLOIDION, lb.	75	80	HERB, Althea, lb.	27	35
Bayberry, lb.	15	18	Cantharidal, lb.	2 50	2 75	Bitterwort, lb.	30	40
Buckthorn, lb.	15	17	CONFECTION, Senna, lb.	40	45	Burdock, lb.	10	18
Canella, lb.	15	17	CREOSOTE, Wood, lb.	2 00	2 50	Boneset, ozs., lb.	15	17
Cascarilla, select, lb.	25	30	CUT FLESH BONE, lb.	25	30	Catnip, ozs., lb.	17	20
Cassia, in mats, lb.	18	20	DENTURINE, lb.	10	12	Chiretta, lb.	25	30
Cinchona, red, lb.	60	65	DOVER'S POWDER, lb.	1 50	1 00	Coltsfoot, lb.	20	38
Powdered, lb.	65	70	ERGOT, Spanish, lb.	75	80	Feverfew, ozs., lb.	53	55
Yellow, lb.	35	40	Powdered, lb.	90	1 00	Grindelia robusta, lb.	45	50
Pale, lb.	40	45	Ergotin, Keith's, oz.	2 00	2 10	Horehound, ozs., lb.	18	20
Elm, selected, lb.	18	20	EXTRACT LOGWOOD, bulk, lb.	13	14	Jaborandi, lb.	45	50
Ground, lb.	17	20	Pounds, lb.	14	17	Lemon Balm, lb.	38	40
Powdered, lb.	20	28	FLOWERS, Amica, lb.	15	20	Liverwort, German, lb.	38	40
Hemlock, crushed, lb.	18	20	Calendula, lb.	55	60	Lobelia, ozs., lb.	15	20
Oak, white, crushed lb.	15	17	Camomile, Roman, lb.	25	30	Motherwort, ozs., lb.	20	22
Orange peel, bitter, lb.	15	16	German, lb.	40	45	Mullein, German, lb.	17	20
Prickly ash, lb.	35	40	Elder, lb.	20	22	Pennyroyal, ozs., lb.	18	20
Sassafras, lb.	15	16	Lavender, lb.	12	15	Peppermint, ozs., lb.	21	22
Soap (quillaya), lb.	13	15	Rose, red, French, lb.	1 60	2 00	Rue, ozs., lb.	30	35
Wild cherry, lb.	13	15	Rosemary, lb.	25	30	Sage, ozs., lb.	18	20
BLANS, Calabar, lb.	45	50	Saffron, American, lb.	65	70	Spearmint, lb.	21	25
Tonka, lb.	1 50	2 75	Spanish, Val'a, oz.	1 00	1 25	Thyme, ozs., lb.	18	20
Vanilla, lb.	8 50	9 00	GELATINE, Cooper's, lb.	75	80	Tansy, ozs., lb.	15	18
BEKKIES, Cubeb, sifted, lb.	30	35	French, white, lb.	35	40	Wormwood, oz.	20	22
powdered, lb.	35	40	GLYCERINE, lb.	23	25	Yerba Santa, lb.	38	44
Juniper, lb.	7	10	GUARANA, lb.	200	2 25	HONEY, lb.	13	15
Ground, lb.	12	14	Powdered, lb.	2 25	2 50	Hops, fresh, lb.	20	25
Prickly ash, lb.	40	45	GUM ALOES, Cape, lb.	18	20	INDIGO, Madras, lb.	75	80
BUDS, Balm of Gilead, lb.	55	60	Barbadoes, lb.	30	50	INSECT POWDER, lb.	35	38
Cassia, lb.	25	30	Scotchina, lb.	65	70	ISINGLASS, Brazil, lb.	2 00	2 10
BUTTER, Cacao, lb.	75	80	Asafetida, lb.	40	45	Russian, true, lb.	0 00	0 50
CAMPHOR, lb.	95	75	Arabic, 1st, lb.	70	75	LEAF, Aconite, lb.	25	30
CANTHARIDES, Russian, lb.	1 40	1 50	Powdered, lb.	80	95	Bay, lb.	18	20
Powdered, lb.	1 50	1 00	Sifted sorts, lb.	45	50	Belladonna, lb.	25	30
CAPSICUM, lb.	25	30	Sorts, lb.	30	35	Buchu, long, lb.	50	55
			Benzoil, lb.	50	1 00	Short, lb.	25	27
			Catechu, Black, lb.	9	20	Coca, lb.	35	40
			Gamboge, powdered, lb.	1 20	1 25	Digitalis, lb.	15	20
			Guaiac, lb.	50	1 00	Eucalyptus, lb.	18	20
			Powdered, lb.	00	05	Hyoeyamus	20	25
			Kino, true, lb.	2 00	2 25	Matico, lb.	70	75

Senna, Alexandria, lb.	\$ 25	\$ 30	Queen of the Meadow, lb.	\$ 18	\$ 20	Valerianate, oz.	\$ 55	\$ 60
Tinnevely, lb.	15	25	Rhatany, lb.	20	30	AMYL, Nitrite, oz.	16	18
Stramonium, lb.	20	25	Rhubarb, lb.	75	2 50	ANTINERVIN, oz.	85	00
Uva Ursi, lb.	15	18	Sarsaparilla, Hond, lb.	40	45	ANTIKAMNIA,	1 30	1 35
LEECHES, Swedish, doz.	1 00	1 10	Cut, lb.	50	55	ANTHYRIN, oz.	1 10	1 20
LICORICE, Solazzi,	45	50	Senega, lb.	55	65	ARISTOL, oz.	1 85	2 00
Pignatelli,	35	40	Squill, lb.	13	15	ARSENIC, Donovan's sol., lb.	25	30
Grasso,	30	35	Stillingia, lb.	22	25	Fowler's sol., lb.	10	13
Y & S—Sticks, 6 to 1 lb., per lb.	27	30	Powdered, lb.	25	27	Iodide, oz.	50	55
" Purity, 100 sticks in box	75	75	Unicorn, lb.	38	40	White, lb.	6	7
" Purity, 200 sticks in box	1 50	1 50	Valerian, English, lb. true.	20	25	ATROPINE, Sulp. in ½ ozs. 80c.,	6 00	6 25
" Acme Pellets, 5 lb. tins	2 00	2 00	Virginia, Snake, lb.	40	45	oz.	35	40
" Lozenges, 5 lb. tins.	2 00	2 00	Yellow Dock, lb.	15	18	BISMUTH, Ammonia-citrate, oz.	50	55
" Tar, Licorice, and Tolu,			RUM, Bay, gal.	2 50	2 75	Iodide, oz.	20	25
5 lb. tins.	2 00	2 00	Essence, lb.	3 00	3 25	Salicylate, oz.	1 80	2 00
LUPULIN, oz.	30	35	SACCHARIN, oz.	1 25	1 50	Subcarbonate, lb.	1 50	1 60
LYCOPODIUM, lb.	70	80	SEED, Anise, Italian, sifted, lb.	13	15	Subnitrate, lb.	7	8
MACE, lb.	1 20	1 25	Star, lb.	35	40	BORAX, lb.	8	9
MANNA, lb.	1 00	1 75	Burdock, lb.	30	35	Powdered, lb.	8	13
Moss, Iceland, lb.	9	10	Canary, bag or less, lb.	4	5	BROMINE, oz.	20	25
Irish, lb.	12	13	Caraway, lb.	10	13	CADMIUM, Bromide, oz.	45	50
MUSK, Tonquin, oz.	46 00	50 00	Cardamom, lb.	1 25	1 50	Iodide, oz.	55	60
NUTGALLS, lb.	21	25	Celery,	25	30	CAFFEINE, oz.	45	50
Powdered, lb.	25	30	Colecium,	50	60	Citrate, oz.	1 50	1 60
NUMEGS, lb.	1 00	1 10	Coriander, lb.	10	12	CALCIUM, Hypophosphite, lb.	95	1 00
NUX VOMICA, lb.	10	12	Cumin, lb.	15	20	Iodide, oz.	35	38
Powdered, lb.	25	27	Fennel, lb.	15	17	Phosphate, precip., lb.	5	6
OAKUM, lb.	12	15	Fenugreek, powdered, lb.	7	9	Sulphur, oz.	10	12
ointment, Merc., lb. ½ and ½	70	75	Flax, cleaned, lb.	3½	4	CERUM, Oxalate, oz.	15	18
Citrine, lb.	45	50	Ground, lb.	4	5	CHINOIDINE, oz.	1 25	1 30
PARALDEHYDE, oz.	20	22	Hemp, lb.	3½	4	CHLORAL, Hydrate, lb.	75	80
PEPPER, black, lb.	12	13	Mustard, white, lb.	11	12	Croton, oz.	60	1 90
Powdered, lb.	15	16	Powdered, lb.	15	20	CHLOROFORM, lb.	25	30
PITCH, black, lb.	3	4	Pumpkin,	25	30	CINCHONINE, sulphate, oz.	15	20
Bergundy, true, lb.	10	12	Quince, lb.	65	70	CINCHONIDINE, Sulph., oz.	5 25	6 25
PLASTER, Calcined, bbl. cash.	25	3 25	Rape, lb.	5	6	COCAINE, Mur., oz.	70	75
Adhesive, yd.	12	13	Strophanthus, oz.	50	55	CODIA, ½ oz.	65	70
Belladonna, lb.	65	70	Worm, lb.	22	25	COLLOIDION, lb.	6	7
Galbanum Comp., lb.	80	85	SEIDLITZ MIXTURE, lb.	25	30	COPPER, Sulph., (Blue Vitriol) lb.	65	70
Lead, lb.	25	30	SOAP, Castile, Mottled, pure, lb.	10	12	Iodide, oz.	1	3
POPPY HEADS, per 100.	1 00	1 10	White, Conti's, lb.	15	16	COPPERAS, lb.	1 60	1 65
ROSIN, Common, lb.	2½	3	Powdered, lb.	25	40	DIURETIC, oz.	75	80
White, lb.	3½	4	Green (Sapo Viridis), lb.	25	25	ETHER, Acetic, lb.	40	50
RESORCIN, white, oz.	25	30	SERMACETI, lb.	65	70	Sulphuric, lb.	1 00	1 10
ROCHELLE SALT, lb.	28	30	TURPENTINE, Chian, oz.	75	80	EXALGINE, oz.	25	30
ROOT, Aconite, lb.	22	25	Venice, lb.	10	12	HYOSCYAMINE, Sulp., crystals, gr.	4 75	5 50
Althea, cut, lb.	30	35	WAX, White, lb.	50	75	IODINE, lb.	6 00	7 00
Belladonna, lb.	25	30	Yellow,	40	45	IODOFORM, lb.	1 40	1 50
Blood, lb.	15	16	WOOD, Guaiac, rasped.	5	6	IODOL, oz.	80	85
Bitter, lb.	27	30	Quassia chips, lb.	10	12	IRON, by Hydrogen.	15	16
Blackberry, lb.	15	18	Red Saunders, ground, lb.	5	6	Carbonate, Precip., lb.	30	35
Burdock, crushed, lb.	18	20	Santal, ground, lb.	5	6	Sacch., lb.	45	55
Calamus, sliced, white, lb.	20	25				Chloride, lb.	13	16
Canada Snake, lb.	30	35	CHEMICALS.			Sol., lb.	90	1 00
Cohosh, black, lb.	15	20	ACID, Acetic, lb.	12	13	Citrate, U.S.P., lb.	70	75
Colecium, lb.	40	45	Glacial, lb.	45	50	And Ammon., lb.	1 50	3 00
Columbo, lb.	20	22	Benzoic, English, oz.	20	25	And Quinine, lb.	18	30
Powdered, lb.	25	30	German, oz.	10	12	Quin. and Stry., oz.	13	15
Coltsfoot, lb.	38	40	Boracic, lb.	13	14	And Strychnine, oz.	50	55
Comfrey, crushed, lb.	20	25	Carbolic Crystals, lb.	28	30	Dialyzed, Solution, lb.	55	60
Curcuma, powdered, lb.	13	14	Calvert's No. 1, lb.	2 10	2 15	Ferrocyanide, lb.	25	30
Dandelion, lb.	15	18	No. 2, lb.	1 35	1 40	Hypophosphites, oz.	40	45
Elecampane, lb.	15	20	Citric, lb.	45	50	Iodide, oz.	40	45
Galangal, lb.	15	18	Galic, oz.	10	12	Syrup, lb.	5	6
Gelsemium, lb.	22	25	Hydrobromic, diluted, lb.	30	35	Lactate, oz.	15	16
Gentian or Genitan, lb.	10	11	Hydrocyanic, diluted, oz. bottles	1 50	1 60	Permanganate, solution, lb.	1 25	1 30
Ground, lb.	11	12	doz.	22	25	Phosphate scales, lb.	7	9
Powdered, lb.	13	15	Lactic, concentrated, oz.	3	5	Sulphate, pure, lb.	8	10
Ginger, African, lb.	18	20	Muriatic, lb.	18	20	Exsiccated, lb.	80	85
Po., lb.	20	22	Chem. pure, lb.	10½	13	And Potass. Tartrate, lb.	80	85
Jamaica, blebd., lb.	27	30	Nitric, lb.	25	30	And Ammon Tartrate, lb.	13	15
Po., lb.	30	35	Chem. pure, lb.	75	80	LEAD, Acetate, white, lb.	7	8
Ginseng, lb.	4 50	4 75	Oleic, purified, lb.	12	13	Carbonate, lb.	35	40
Golden Seal, lb.	75	80	Oxalic, lb.	1 00	1 10	Iodide, oz.	7	9
Gold Thread, lb.	90	95	Phosphoric, glacial, lb.	13	17	Red, lb.	4	5
Hellebore, white, powd., lb.	12	15	Dilute, lb.	30	35	LIME, Chlorinated, bulk, lb.	6	7
Indian Hemp,	18	20	Pyrogallie, oz.	35	70	In packages, lb.	37	35
Ipecac, lb.	1 75	2 00	Salicylic, white, lb.	2½	2½	LITHIUM, Bromide, oz.	30	35
Powdered, lb.	2 00	2 25	Sulphuric, carboy, lb.	5	6	Carbonate, oz.	25	30
Jalap, lb.	55	60	Bottles, lb.	18	20	Citrate, oz.	50	55
Powdered, lb.	40	90	Chem. pure, lb.	80	85	Iodide, oz.	35	40
Kava Kava, lb.	12	15	Tannic, lb.	38	40	Salicylate, oz.	55	60
Licorice, lb.	13	15	Tartaric, powdered, lb.	70	75	MAGNESIUM, Calc., lb.	18	20
Powdered, lb.	13	18	ACEIANILID, lb.	4	5	Carbonate, lb.	35	40
Mandrake, lb.	16	40	ACONTINE, grain.	1½	3	Citrate, gran., lb.	1½	3
Masterwort, lb.	30	35	ALUM, cryst., lb.	3	4	Sulph. (Epsom salt), lb.	5	7
Orris, Florentine, lb.	40	45	Powdered, lb.	10	12	MANGANES, Black Oxide, lb.	50	55
Powdered, lb.	40	45	AMMONIA, Liquor, lb., .880.	80	85	MENTHOL, oz.	75	80
Pareira Brava, true, lb.	40	45	AMMONIUM, Bromide, lb.	14	15	MERCURY, lb.	1 25	1 30
Pink, lb.	30	35	Carbonate, lb.	35	40	Ammon (White Precip.)	85	90
Parsley, lb.	20	25	Iodide, oz.	40	45	Chloride, Corrosive, lb.	1 00	1 10
Pleurisy, b.	15	18	Nitrate crystals, lb.	12	16	Calomel, lb.	60	65
Poke, lb.			Muriate, lb.			With Chalk, lb.		

gathered in the Battery before Castle Garden by six o'clock, although the concert did not begin until eight. When the doors were opened the crush was terrible, and within fifteen minutes every available inch of room, other than the reserved seats, was occupied, and 10,000 people were outside, unable to get in. Then every rowboat, sailboat, and steamer which could be pressed into service was engaged to lie in the water by the old Garden Hall, crowded with people, who could only hear the strains of Jenny's voice as it floated through the opened windows. The whole scene has now been repictured by Hon. A. Oakey Hall, ex-Mayor of New York City, and he gives a wonderfully graphic recital of the event in the November *Ladies' Home Journal*. The actual scene of Jenny Lind singing her first song to her wonderful audience of thousands is shown in a picture copied by De Thulstrup from a photograph made at the time.

Frank Leslie's Popular Monthly for November.

Yale University is the subject of an interesting article in the November number of *Frank Leslie's Popular Monthly*. It is written by one of the senior students, George Henry Nettleton, and is profusely illustrated with views and portraits. It is the first of a series of papers on "American Universities and Colleges," to appear in successive issues of this magazine. Another attractive and well illustrated article in this number is "The Stage Debutanté," by Arthur Hornblow, giving portraits of many of the younger actresses. Then there is a description of Madagascar and the Malagasy, by Mary Titcomb; the continuation of Edith Sessions Tupper's stirring serial, "Father John"; a graphic account of the "Twin Cities," Minneapolis and St. Paul, by Charles Thomas Logan; an article on the Gold Standard, by Henry Cabot Lodge; short stories and poems by John Gilmer Speed, Captain Jack Crawford, Lurana W. Sheldon, Ella Higginson, Louis Pendleton, and Clifford Howard; the Department for Boys and Girls, with contributions by F. A. Ober and Horatio Alger, Jr., etc. The quality and quantity of the illustrations in this number are particularly noticeable.

The Companion Calendar.

It is said that the expense of making the *Companion Art Calendar* for 1897 was so great that had it been published in the usual quantity it could not be sold for less than one dollar. Four beautiful female figures are reproduced on four folding pages. Each figure is lithographed in twelve colors, being a true reproduction of the original water-color painting, which was selected because of its excellence of design and charm of color and tone. The size of each of the four folding pages is 10½ inches by 6 inches.

It is by far the best piece of color work the *Companion* has ever offered. Both as a calendar and as a gem of the litho-

grapher's art, it is so attractive that it becomes a valuable addition to the mantel or centre table of any room. It is given free to all new subscribers sending \$1.75 to the *Companion* for the year 1897, who receive also the paper free from the time the subscription is received till January 1, 1897.

Celebrating in 1897 its seventy first birthday, the *Companion* offers its readers many exceptionally brilliant features. Fully two hundred of the most famous men and women of both continents have contributed to the next year's volume of the paper. For free illustrated prospectus address *The Youth's Companion*, 205 Columbus avenue, Boston, Mass.

The Ladies' Home Journal.

A series of articles of unique interest has been undertaken by *The Ladies' Home Journal*. It is to be called "Great Personal Events," and will sketch the most wonderful scenes of popular enthusiasm and thrilling historic interest which have occurred in America during the past fifty years. Each one will be graphically detailed by an eye-witness, while leading artists have been employed to portray the events in pictures made from old illustrative material. The series has just been started in the current number of the magazine, Hon. A. Oakey Hall, ex-Mayor of New York City, sketching the scene, "When Jenny Lind Sang in Castle Garden," which still stands as the greatest single concert in the annals of American music. Mrs. Henry Ward Beecher, in the following issue, will tell of a remarkable scene in which her husband was the central figure, "When Mr. Beecher Sold Slaves in Plymouth Pulpit." Then Stephen Fiske will portray the furore and excitement "When the Prince of Wales was in America." Parke Godwin will follow this in a succeeding number with an account of the unparalleled excitement in New York "When Louis Kossuth Rode Up Broadway." Hon. John Russell Young will sketch "When Grant went Around the World," Mr. Young being of General Grant's party. The great scene in the Senate Chamber "When Henry Clay Said Farewell to the Senate" will follow. Lincoln will figure twice in the series: first, in a description of "When Lincoln was First Inaugurated," and, next, "When Lincoln was Buried." The stirring story of the discovery of gold by John W. Mackay will be revived in "When Mackay Struck the Great Bonanza." The series will extend through all the numbers of *The Ladies' Home Journal* during 1897.

Life at Washington.

The inauguration of a President, the selection of his Cabinet, and the seating of a new Congress—national events of the coming year—suggest the question, What are the powers and duties of these high officials? During 1897 it will be answered through the *Youth's Companion*,

in a remarkable series of articles by Secretary Herbert, Postmaster General Wilson, Attorney General Harmon, Senator Lodge, and Speaker Reed.

The illustrated announcement for 1897 (mailed free on application) to the *Youth's Companion*, Boston, shows that the above is only one of many brilliant "features" by which the *Companion* will signalize its seventy-first year.

Three novelists who at present fill the public eye—Ian Maclaren, Rudyard Kipling, and Stephen Crane—will contribute some of their strongest work. Practical affairs and popular interests will be treated by Andrew Carnegie, Hon. Theodore Roosevelt, Dr. Lyman Abbott, Madame Lillian Nordica, Hon. Carl Schurz, Charles Dudley Warner, Mrs. Burton Harrison, and a hundred other famous men and women.

Four fascinating serials, more than two hundred short stories, and ten times as many sketches and anecdotes will be printed during 1897; and all the departments will be maintained at the high standard which has made the *Companion's* name a synonym for impartial accuracy.

The cost of the *Companion* is but \$1.75 a year, and we know of no investment that will give so great returns for so small an amount of money. New subscribers will receive the paper free from the time the subscription is received until January 1, 1897, and for a full year to January, 1898. New subscribers also receive the *Companion* four-page calendar, lithographed in twelve colors, which is the most expensive color production its publishers have ever offered. Address *The Youth's Companion*, 205 Columbus avenue, Boston, Mass.

Vanilla.

Messrs. Tyler & Finch, New York, who are large dealers in vanilla, say:

The position of the market for vanilla beans is of interest to all manufacturers of this delicious flavor. Owing to the destruction of plants by frost, the crop of last year was less than half an average, the estimates proving very nearly correct. The deficiency was largely made up by accumulated stocks from former years, so that the supply was sufficient for the diminished demand under the general depression, and the low scale of prices continued to the end of the season.

The new plants are not yet bearing, and the shortage in the crop of this year is now variously estimated at 40 to 60 per cent. This crop will come on barren markets everywhere, and the natural result is steadily advancing prices in all the markets of the world, with little prospect of any decline before the end of 1897.

To remove cigarette stains immerse the fingers for a moment in aqua potassæ, after which rinse thoroughly with water.

Marmorekin is the proprietary name of Marmorek's streptococcus serum.

Iodide, Proto, oz.....	\$ 35	\$ 40
Bin., oz.....	25	30
Oxide, Red, lb.....	1 15	1 20
Pill (Blue Mass), lb.....	70	75
MILK SUGAR, powdered, lb.....	30	35
MORPHINE, Acetate, oz.....	1 90	1 95
Muriate, oz.....	1 90	1 95
Sulphate, oz.....	2 00	2 10
PEPSIN, Saccharated, oz.....	35	40
PHENACETINE, oz.....	40	42
PILOCARPINE, Muriate, grain.....	35	38
PIPERIN, oz.....	1 00	1 10
PHOSPHORUS, lb.....	90	1 10
POTASSA, Caustic, white, lb.....	60	65
POTASSIUM, Acetate, lb.....	35	40
Bicarbonate, lb.....	15	17
Bichromate, lb.....	14	15
Bitrat (Cream Tart.), lb.....	29	30
Bromide, lb.....	65	70
Carbonate, lb.....	12	13
Chlorate, Eng., lb.....	18	20
Powdered, lb.....	20	22
Citrate, lb.....	70	75
Cyanide, lb.....	40	50
Hypophosphites, oz.....	10	12
Iodide, lb.....	4 00	4 10
Nitrate, gran, lb.....	8	10
Permanganate, lb.....	40	45
Prussiate, Red, lb.....	50	55
Yellow, lb.....	32	35
And Sod. Tartrate, lb.....	25	30
Sulphuret, lb.....	25	30
PROPYLAMINE, oz.....	35	40
QUININE, Sulph., bulk.....	25	32
Ozs., oz.....	30	35
QUINIDINE, Sulphate, ozs., oz.....	16	20
SALICIN, lb.....	75	4 00
SANTONIN, oz.....	20	22
SILVER, Nitrate, cryst, oz.....	90	1 00
Fused, oz.....	1 00	1 10
SODIUM, Acetate, lb.....	30	35
Bicarbonate, kgs., lb.....	2 75	3 00
Bromide, lb.....	65	70
Carbonate, lb.....	3	6
Hypophosphite, oz.....	10	12
Hyposulphite, lb.....	3	6

Iodide, oz.....	\$ 40	\$ 43
Salicylate, lb.....	1 00	1 10
Sulphate, lb.....	2	5
Sulphite, lb.....	8	10
SOMNAL, oz.....	85	00
SPIRIT NITRE, lb.....	35	65
STRONTIUM, Nitrate, lb.....	18	20
STRYCHNINE, crystals, oz.....	80	85
SULFONAL, oz.....	40	42
SULPHUR, Flowers of, lb.....	2½	4
Pure precipitated, lb.....	13	20
TARTAR EMEIC, lb.....	50	55
THYMOL (Thymic acid), oz.....	55	60
VERATRINE, oz.....	2 00	2 10
ZINC, Acetate, lb.....	70	75
Carbonate lb.....	25	30
Chloride, granular, oz.....	13	15
Iodide, oz.....	60	65
Oxide, lb.....	13	60
Sulphate, lb.....	9	11
Valerianate, oz.....	25	30

ESSENTIAL OILS.

Oil, Almond, bitter, oz.....	75	80
Sweet, lb.....	40	50
Amber, crude, lb.....	40	45
Rect., lb.....	60	65
Anise, lb.....	3 75	3 90
Bay, oz.....	50	60
Bergamot, lb.....	3 75	4 00
Cade, lb.....	90	1 00
Cajuput, lb.....	1 60	1 70
Capicum, oz.....	60	65
Cassia, lb.....	2 75	3 00
Cedar, lb.....	3 30	3 50
Cinnamon, Ceylon, oz.....	55	85
Citronella, lb.....	2 75	3 00
Clove, lb.....	80	85
Copaiba, lb.....	1 10	1 20
Copaiiba, lb.....	1 75	2 00
Croton, lb.....	1 50	1 75
Cubeb, lb.....	2 50	3 00
Cumin, lb.....	5 50	6 00
Erigeron, oz.....	20	25
Eucalyptus, lb.....	1 50	1 75
Fennel, lb.....	1 60	1 75

Geranium, oz.....	\$1 75	\$1 80
Rose, lb.....	3 20	3 50
Juniper berries (English), lb.....	4 50	5 00
Wood, lb.....	70	75
Lavender, Chiris. Fleur, lb.....	3 00	3 50
Garden, lb.....	1 50	1 75
Lemon, lb.....	1 90	2 00
Lemongrass, lb.....	1 50	1 60
Mustard, Essential, oz.....	60	65
Neroli, oz.....	4 25	4 50
Orange, lb.....	2 75	3 00
Sweet, lb.....	2 75	3 00
Origanum, lb.....	65	70
Patchouli, oz.....	80	85
Pennyroyal, lb.....	2 50	2 75
Peppermint, lb.....	2 75	3 00
Pimento, lb.....	2 60	2 75
Rhodium, oz.....	80	85
Rose, oz.....	7 50	11 00
Rosemary, lb.....	70	75
Rue, oz.....	25	30
Sandalwood, lb.....	5 50	7 50
Sassafras, lb.....	75	80
Savin, lb.....	1 60	1 75
Spearment, lb.....	3 75	4 00
Spruce, lb.....	65	70
Tansy, lb.....	4 25	4 50
Thyme, white, lb.....	1 80	1 90
Wintergreen, lb.....	2 75	3 00
Wormseed, lb.....	3 50	3 75
Wormwood, lb.....	4 25	4 50

FIXED OILS.

CASTOR, lb.....	11	12
COD LIVER, N.F., gal.....	2 25	2 30
Norwegian, gal.....	3 00	3 25
COTTONSEED, gal.....	1 10	1 20
LARD, gal.....	90	1 00
LINSEED, boiled, gal.....	56	59
Raw, gal.....	55	58
NEATSFOOT, gal.....	1 20	1 30
OLIVE, gal.....	1 20	1 25
Salad, gal.....	2 50	2 60
PALM, lb.....	12	13
SPERM, gal.....	1 35	1 40
TURPENTINE, gal.....	60	65

Drug Reports.

Canada.

Business continues fair, while the advance and the possibilities of the development of our mining interests make the future of business in Canada much brighter than they have been for years.

Quinine is lower in price.

Oil peppermint keeps down in price.

Castor oil much higher.

Brimstone " "

Carbolic acid advanced 2c. lb.

Cocaine has declined in price.

Ipecacuanha is lower.

Camphor gum will probably be dearer.

Gum guaiacum is advancing.

Quicksilver has declined.

Caffeine is lower.

Tartar emetic is a trifle easier.

Cod-liver oil firm at last month's quotations.

Salve is somewhat reduced in price.

Oil sassafras has advanced.

Opium still remains very low, and no indications of an advance.

The most interesting feature in the drug market has been the further decline in the price of quinine, owing, it is said, to the competition of the new French makers.

England.

London, Oct. 27th, 1896.

There has been an improved tone in the markets, and trade generally is more active.

Acids—Citric and tartaric are dull and easier. Carbolic is firmer. Salicylic has had another drop, and prices are down nearly 25 per cent.

Atropine has been advanced owing to the rise in belladonna root.

Arsenic is slightly easier, but prices are still high.

Balsams—Copaiba firmly held. Tolu steadily advancing.

Glycerine extremely firm, and prices are expected to advance.

Gums—Acacia fine sorts are scarce. Benzoin, unchanged.

Menthol—Easier, with downward tendency.

Oils—Italian castor is dearer. Cod-liver firm and expected to advance. Star anise dearer, and cassia also. Otto is reduced, and quite possibly lower figures may follow.

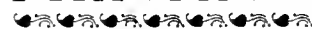
Opium, dull and unchanged. Quinine, easier.

Roots—Ipecacuanha and jalap firmer. Gentian, dearer, owing to poor crop. Belladonna, advanced for same reason. Senega, higher.

Saffron—New crop not yet due, and old stock has advanced.



OUR PRINTING



Is artistic

OUR BINDING



Is handsome and durable

OUR CHARGES



Are moderate

We would like to have your patronage . . .

The Bryant Press,
Toronto.

Printers of THE CANADIAN DRUGGIST.



Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VIII.

TORONTO, DECEMBER, 1896.

No. 12

"APENTA"

THE BEST NATURAL APERIENT
WATER.

Bottled at the UJ HUNYADI

SPRINGS, Buda Pest, Hungary.

*Under the absolute control of the Royal
Hungarian Chemical Institute (Ministry of
Agriculture), Buda Pest.*

"APENTA"

THE BEST NATURAL APERIENT
WATER.

"We know of no stronger or more
favourably-constituted Natural Aperient
Water than that yielded by the Uj Hunyadi
Springs."

L. Lieberman

*Royal Councillor, M.D., Professor of Chemistry,
and Director of the Royal Hungarian State
Chemical Institute (Ministry of Agriculture),
Buda Pest.*

"APENTA"

THE BEST NATURAL APERIENT
WATER.

By instructions from the Apollinaris Company,
Limited, now offered to the Trade at

\$5.50 per case of 25 large glass bottles.

\$8.00 " 50 small " "

\$8.00 " 100 glass quarter "

SHOULD THE PRICE OF

"APENTA"

be reduced, we guarantee to allow such reduction
to our Buyers on their unsold stock, and as far as
possible, to secure a corresponding reduction to
Retailers upon their unsold stock.

SOLE EXPORTERS:

THE APOLLINARIS COMPANY, Ltd.,

LONDON

CANADIAN SUB-AGENTS:

WALTER R. WONHAM & SONS,
Montreal.

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

Subscription \$1 per year in advance.

Advertising rates on application.

The CANADIAN DRUGGIST is issued on the 15th of each
month, and all matter for insertion should reach us by the
5th of the month.

New advertisements or changes to be addressed

Canadian Druggist,

111 RICHMOND ST. WEST,
TORONTO, ONT.

EUROPEAN AGENCIES:

London, England: 145 Fleet Street, E.C.

Paris, France: 12 Rue de la Grange Bateliere.

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Greeting

The CANADIAN DRUGGIST wishes all
its readers a Merry Christmas and Happy
New Year. May 1897 bring to the drug
gists of Canada peace and plenty, and
may the close of it find them cemented
in the brotherhood of good will towards
each other and the rest of mankind is our
parting wish for 1896.

The Best Recipe Book.

There are few druggists who do not
make constant use of some favorite recipe
book, and but few who use the best ones
as they should.

The official pharmacopoeia contains
not only the best formulas for preparations,
but also a complete description of their
characteristics, properties, and doses.

The druggist who wants to establish a
trade in reliable remedies cannot do better
than adopt such of these as will suit his
purpose. In labelling each preparation
the pharmacopoeial description of its pro-
perties and uses could be given, and the
statement be made that the compound
was prepared strictly according to the in-
structions of the pharmacopoeia. Such a
statement would provide all the argument
needed by the druggist to push the sale,
and would remove any sense of diffidence
on his part in recommending a prepara-
tion which he had made.

If the druggists of Canada would agree
as a body to discourage the sale of any
preparation which could not be pharma-
copoeially designated, such a difficulty as
now prevails with cut prices on secret
remedies would soon have an end, and the
science of pharmacy would be more gen-
erally recognized and respected. There
is not the slightest doubt but the marked
tendency of the time, in medicine and
pharmacy, to encourage empiricism, has
a lowering influence upon both, and that
both will suffer from it unless a healthy
reformation speedily takes place in their
judgment and methods of prescribing and

compounding. Personally, but few doctors or druggists would be willing to be designated as they deserve, yet they thoughtlessly imitate and practise the methods and habits of conduct which they condemn in others. The pharmacopoeia does not savor of empiricism, a thorough knowledge of it inspires confidence and ensures that deference from the public which is always paid to authoritative experience and skill. So widely is its merit recognized, the principal nations of the earth have sought by conference to harmonize such variations as their stand-ard showed. Through it and it alone the physician and pharmacist are brought together to mitigate the sufferings of humanity. Any departure from it causes confusion. It is definite, trustworthy, and complete. A careful study of it from this standpoint may secure for it a use which will make it even more generally useful than it has yet been. Read it carefully.

Little Pointers to Win By.

If you are a druggist of limited experience and have an earnest desire to succeed, study well the following:

Understand your business thoroughly from a scientific standpoint.

Observe closely the habits and business conduct of men in other pursuits who are succeeding, and profit by the knowledge you gain.

Have everything about your business as neat and tidy as possible.

Get your customers to understand that nothing you keep in stock can be too good to supply the wants of the sick and suffering.

Pay close personal attention to every detail of your business, and when possible, speak to every customer, even though you may not be personally attending to their wants.

Never show temper in your establishment, or permit it to be shown by any of your employees.

Do not govern your employees by harshness, treat them civilly, win their respect, encourage them to take a personal interest in your business. Show your customers that you have confidence in them and they are sure to.

Be punctual in all your business engagements and rigidly fulfil all promises made; enjoy the reputation of being always as good as your word.

Recollect that your business is a serious

one, and allow no unbecoming levity to lower its dignity.

Under no circumstances encourage loafing in your store or permit the privacy of your dispensing department to be invaded.

If you live behind your store, and any of the ladies of your household should come into your dispensary while customers are waiting, be sure to caution privacy and silence on their part.

Remember that ladies are sure to be your best customer, if you can win them, and recollect that their sensitiveness or suspicion should not be wounded or aroused by any remark to your employees which they may not distinctly hear, as they are apt to suspect personal reflections.

Under no circumstances should a titter or a laugh be indulged in behind the dispensing counter while ladies are waiting in front.

Be extremely careful of your reputation and habits; remember you are apt to be judged by the company you keep.

Avoid personal or home extravagance; your business is one which can rarely afford it.

Keep your prices moderate, but be as ready to defend them as the quality of goods you supply.

Avoid assuming positions of public trust unless you are endowed with the unusual faculty of being able to do more than one thing well at the same time.

Never go upon a bond for an amount greater than the cash value of your assets; it is usually good business policy to refuse signing any bonds which you are not obliged to.

Be sober, be earnest, be active, be honest and attend to the above pointers, and you are sure to win success.

Editorial Notes.

Mr. Geo. S. Davis, general manager of the house of Parke, Davis & Co., Detroit, Mich., has retired from his position, and is about to leave for California for a holiday. He is succeeded in the management by Mr. William M. Warren.

The Universal Trade Association, with headquarters in Detroit, Mich., is being vigorously denounced by many leading pharmacists and the pharmaceutical press. The association was formed ostensibly for the purpose of regulating the prices of proprietary medicines. At the annual meeting held

recently, J. N. Hayes was re-elected chief organizer, through holding a preponderance of stock. It is estimated that over 3,000 pharmacists joined the association, but the members have been unable to get particulars as to what has been done with the money.

It is a lesson which cannot be too strongly impressed on persons who rely on the *personnel* of any management, to see that the books are at all times open for the inspection of investors, not of a board alone, but of all members, and that no money is being needlessly or carelessly expended.

Notwithstanding the fact that the Centaur Company, of New York, have obtained an injunction against Heinnsfurter & Daggett, of Fargo, N.D., to restrain them from using the word Castoria, *The Era* informs us that the latter firm are making arrangements to form a joint stock company, capitalized at \$50,000, to go on with the business, on the assumption that the word Castoria is not a trade-mark, but merely the name of a recognized article of commerce.

It has been suggested to establish inter-Australian pharmaceutical reciprocity. It is claimed that the only obstacle is the want of a common intercolonial examination. It is proposed that a Board of Examiners be appointed, consisting of a representative from each of the Australasian Colonies, that a common examination be agreed upon, and that the examinations be held at the same time in the respective Colonies. The suggestion is looked upon as a practicable one. Although there are difficulties in the way of such reciprocity between the several provinces of Canada, principally that of the French language in Quebec, still we believe a feasible scheme might be adopted and one which would be acceptable to all parties concerned.

According to the *Chemist and Druggist* the matter of regulating the prices of specialties is a problem for French pharmacists as well as ourselves. It says:

The Speciality Question in France remains dormant for the moment. It will be remembered that there is a strong feeling, principally in the provinces, in favor of the total suppression of the sale of specialties by pharmacists. The majority of French pharmacists, however, are against such a radical measure, but agree that prohibition of sale at discount is necessary. The difficulty to be overcome is that the law in France looks upon trade combinations for maintaining artificial prices of products as illegal. M.

Protonuclein..

Tablets. (100 3 gram Tablets in bottle) per doz. \$ 9.00
 " (1000 3 gram Tablets in bottle) " each 6.75
 Powder. (1 oz. bottles) " per doz. 6.00
 " (8 oz. in bottle) " each 5.50

REED & CARNRICK,
 30 Wellington St. East, TORONTO.

Duncan, Flockhart & Co.'s

Blaud Pill Capsules

Are soft and flexible Never become oxidized
 Never become hard Never vary in strength

These Capsules are put up in 1, 2, and 3 pill sizes, with or without Arsenic, and can be supplied in boxes of 25 or 100 (each). They are prepared by a unique and original process, which entirely overcomes the tendency to **hardening** which is so common in the **Blaud Pills**.

R. L. GIBSON,
 88 Wellington St. West,
TORONTO.

Genuine Antikamnia Preparations

ANTIKAMNIA POWDERED.

ANTIKAMNIA TABLETS,
 (1 gr., 2 gr., 3 gr., 5 gr. or 10 gr. each.)
 ANTIKAMNIA and CODEINE TABLETS,
 (1 1/2 gr. Antikamnia, 1/4 gr. Sulph. Codeine.)
 ANTIKAMNIA and QUININE TABLETS,
 (2 1/2 gr. Antikamnia, 2 1/2 gr. Sulph. Quinine.)
 ANTIKAMNIA and SALOL TABLETS,
 (2 1/2 gr. Antikamnia, 2 1/2 gr. Salol.)
 ANTIKAMNIA, QUININE and SALOL TABLETS,
 (2 gr. Antikamnia, 2 gr. Sulph. Quinine, 1 gr. Salol.)



Without above Monograms None are Genuine.
 These preparations are made solely by us and are put up in 1-oz. packages only.

NEVER IN BULK.

Trade supplied by all jobbing houses in the United States, Canada, Mexico, South and Central America.

British & Colonial Depot, 46 Holborn Viaduct, London, E. C., Eng.

The Antikamnia Chemical Company,

Price List on Application.

ST. LOUIS, MO., U. S. A.

Elliot's

VELVET VIOLET SCENTED TALCUM

Unsurpassed for Nursery and Toilet

Handsome Shakers  Attractive Counter Box

89 1/2 per cent. profit.



CARNOGEN
 CRETA PRECIP. (light)
 MILLER'S TIN BOXES
 HAYE'S GOLD CURE for ASTHMA
 PEPSIN CHIPS, in baskets
 MILLERS' IRON PILLS, etc.
 SUNDRIES, in full assortment
 JERSEY CREAM SOAP (J. B. Williams Co.)
 A thermometer (12 x 14) free with each doz.



**Ideal
 Drinking
 Cup** for Invalids

\$2.00 per doz.

An excellent thing.



Wishing all our friends the compliments
 of the season.

Yours faithfully,

Elliot & Co.

5 Front Street East

Toronto.

Pharmacy in England.

The Preliminary Examination Altered—Death of Mr. A. H. Mason—Colored Podophyllin—Celloidin—A New Aseptic Syringe—Buttermilk Soap—British-made Cameras.

(By Our Own Correspondent.)

It has been authoritatively announced that the council of the Pharmaceutical Society have at length decided to alter the requirements of the preliminary or first examination. For over twenty years, in spite of the progress of general education and the increase of subjects in the qualifying examination, the preliminary has remained unaltered. It is true that in consequence of the representations of the council the College of Preceptors, who conduct the examination, have raised the number of marks required for a pass, but the subjects have still remained the same in spite of repeated remonstrances on the part of those who believe that progress in pharmacy is synonymous with increased education. It is idle to attempt to defend the policy of masterly inactivity that at last appears about to be altered. During these years the medical, legal, and veterinary professions have vastly increased the scope and stringency of their preliminary examinations, which in most cases approximate closely to the matriculation of the London University. Nothing has been definitely settled regarding the new pharmaceutical preliminary, but I have excellent reasons for stating that the council favor the scheme of abolition of the examination *per se*, and accepting the certificates of such bodies as the Oxford and Cambridge local examinations, etc., provided that Latin, mathematics, and one modern foreign language are included amongst the subjects for which the certificate has been granted in addition to the ordinary school subjects.

The sudden death of Mr. A. H. Mason, whose name was familiar to pharmacists in England, Canada, and the United States, came as a shock to his many friends. Although not a pharmacist, Mr. Mason was closely identified with numerous pharmaceutical institutions, and his genial nature endeared him to all who met him. To a quiet manner he added a large amount of energy and business acumen, but it is doubtful if he was really strong enough for the high-pressure work required in New York. He was a constant visitor, when in England, to the meetings of the British Pharmaceutical Conference, and was a member of the Pharmacy Club, and on his leaving for New York, only two years ago, he received a very enthusiastic ovation from his friends.

Lately podophyllin has occurred on the market of a yellowish-green color, instead of the yellowish-brown article to which we were accustomed. As its brighter appearance was rather more attractive little attention was bestowed upon it, especially since the statement has been circulated that it was due to precipitating the resin in the presence of alum, and

that it was just as pure. But E. Merck has recently sent a circular round to the wholesale trade warning them against the greenish-yellow podophyllin, and plainly stating that the color is obtained either by foreign substances, or from the resin being obtained from other rhizomes than podophyllin pellatum. The latter explanation is, I believe, in most cases the true one, and the root that has been used is probably the Indian podophyllin emodi. On the authority of Professor Dunstan, the resin obtained from this root does not differ from that obtained from the American drug, whilst the yield is larger. It is quite possible, therefore, that in the new B.P. this source of podophyllin will be recognized, and indeed it is not actually forbidden now, as when properly prepared it answers the B.P. tests. Care should be taken, however, to examine highly-colored samples of podophyllin, as Merck suggests, to ensure that they are perfectly soluble, 1 in 10 of alcohol and about 1 in 100 of ammonia.

Celloidin is the name given to Schering's Patent Pyroxylin that has several advantages over ordinary pyroxylin, especially for photography. It occurs as a horny substance, not unlike gelatine in appearance, and dissolves in a mixture of absolute alcohol and ether, always presenting a uniform, clear, neutral collodion, that may be iodized without change of color, or without filtering. It is not explosive or dangerous, and burns, when ignited, only like paper. The solution of a strength about one or two per cent. is chiefly used in photography, but microscopists employ an eight per cent. solution for coating specimens that are afterwards to be cut on a freezing microtome. It may be of interest to record here that picrate of ammonium is not half so explosive as it is generally assumed. Quite recently, to test the matter, I have ignited it, boiled it, and ground it in a mortar without the slightest sign of explosion. It burns with a bright, smoky flame, not unlike picric acid, is much more soluble in hot water than cold: indeed, it is impossible to make a solution in the cold stronger than one or two per cent.

Chemists who are asked about aseptic syringes, in those days of serum injections, should bear in mind the advantages of Luer's patent aseptic syringe. It is made entirely of crystal, both cylinder and piston rod, and there are no packings of piston to get foul. Sterilization is easily effected, either by rinsing with absolute alcohol, or by dry heat up to 125° C. The syringes are supplied by Messrs. J. Gray & Son, of the Truss Works, Sheffield, England, and vary in size from one cubic centimetre up to seven c.c.s. in capacity, each syringe being supplied with two steel needles in a velvet-lined leather case, or metal aseptic case, from \$3 to \$8, according to size—platinum needles, that are recommended by some medical men, as they can easily be quickly sterilized by passing them through the flame of a spirit lamp.

Buttermilk soap is the latest craze in toilet soap, and is being boomed for all it is worth. It probably holds its fashionable position to the tale that Mrs. Langtry, or some other beautiful woman, attributes her fair complexion to the virtues of a milk bath. Most people would find this rather an expensive luxury, so the soap-boiler steps in and practically says, why spend money on milk for the complexion when a cake of buttermilk soap will do as well? Since the introduction of Vinolia soap there has been a steadily increasing demand for superfatted soaps, and chemists who have good connections have found it profitable to introduce their own brand. Nearly all the principal soap-makers have one or more varieties of superfatted and milled soaps, and, although these are not cheap, they are far superior to the ordinary products of the dry goods stores. During the winter months many chemists in London push the sale of a cold-cream soap as specially suitable for the period of chaps and chilblains. One word before dismissing this subject: Do not spare any trouble or reasonable expense in obtaining good labels and pretty boxes. The sale is half effected if the general get-up is satisfactory, and nowadays the public is very exacting on this score. The purest soap on earth would not sell half so well as plain curd soap, if it were wrapped in plain paper in a common box. One of the neatest boxes that I have seen, and yet presenting a thoroughly good appearance, is covered with very dark green glazed paper, with a narrow gold edge, and the name of the soap and chemist stamped on the lid in fancy block type. The effect is almost that of a leather box, whilst a pleasing contrast is to have the box lined a delicate salmon pink color. Violet powder looks well in a similar colored box, only the edge and lettering should be aluminium.

The reduction in tariff is causing some of our manufacturers to turn their attention again to Canada, particularly as there is some prospect of the United States raising theirs again. The photographic boom has been followed by the cycle boom, and now the motor car is having its turn; still the amateur photographer is well worth looking after, and British-made cameras and accessories stand deservedly high in the estimation of all devotees to the fascinating art.

London, Nov. 27, 1896.

Recent Patents.

Amongst the patents recently granted to Canadian inventors, the following are of interest to our readers:

W. N. Peay, improvements in liquid disinfecting distributors; A. K. Lydia, composition for removing false membrane in diphtheria and croup; A. Pine, yellow ointment; D. B. March, apparatus for examining the heart and lungs, etc.

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Want
of
the
hour
is
PROFITS**

Our constant aim is to supply the Retail Drug Trade with preparations of undoubted merit that can be confidently recommended, and that will return liberal and satisfactory profits. Such as:

**Creamery
Butter
Color**

Ten retail at 15c.
and 25c., affording
100 per cent. profit.



**Taylor's
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Ink**

Sells at 25c., with
100 per cent.
profit.

**Sure
Death
Rat Poison**

Sells at 15c., and
pays over
200 per cent.



**"The Best"
Sarsaparilla**

A splendid
preparation,
handsomely
put up, sells at \$1.00, with 140 per cent.

We strongly recommend all of the above to the
Retail Druggists of Canada

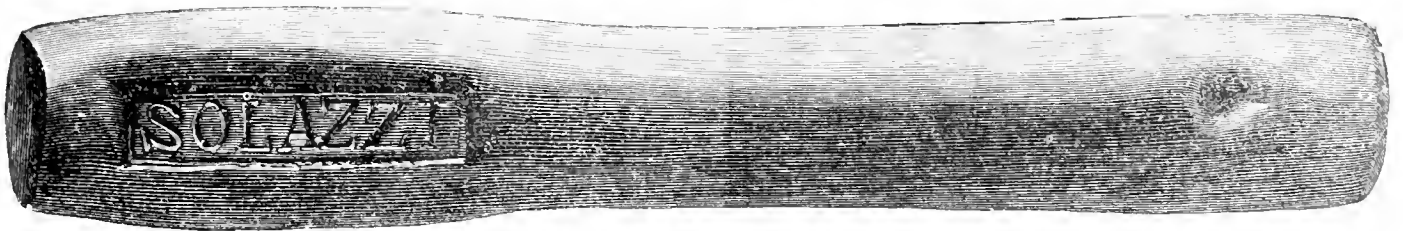
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**Wholesale Druggists,
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THE CHEMISTS' BRAND

Liquorice Juice



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"The above brand has long been known to be of standard purity. We found the specimen to be completely soluble in water, and entirely free from impurities of any kind. It is, therefore, well adapted for the pharmaceutical purpose for which it is so useful, while as a popular demulcent it is both safe and reliable."

Recommended also by "The British Medical Journal," "Health," "The Chemist and Druggist," "Food and Sanitation"



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A new and unique preparation for the skin. This preparation is the discovery of a French specific for the complexion. Its peculiar properties are the removal and prevention of wrinkles, the refining of coarse pores, and a wonderful tonic for whitening and softening of the skin.

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 Surgical Dressings,
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 Send for quarterly quotations.

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FINE RUBBER GOODS

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The best Garments that can be worn to keep out the cold and retain the heat of the body.

Persons following outdoor pursuits will appreciate these Vests, as they give a great degree of warmth, with practically no additional weight. In hunting, driving, skating, coasting, curling, and other pastimes where one is out in the cold and wind, they will be found invaluable. For these not accustomed to the cold they are most comfortable to put on in going to and from business, church, the theatre, and elsewhere.

Made in Three Styles, to Retail at
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Send for samples or write to

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 WHO ARE GROWING?**

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Where can be seen the largest, best, and cheapest stock of

**Sponges and
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In Canada. Our Sponges are purchased for us at the fisheries, and come direct from Nassau, Florida, Cuba, Abaco, Acklins, Exuma, and the far-famed isles of Greece.

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The secret of our being able to give unprecedented value in these lines is our knowing how to buy. The case in a nutshell. Try us, and convince yourself that our claim is no vain boast.

Sponges to suit every requirement and every trade. Sponges of every variety and every grade. In original packages, unbleached, or in cases, bleached.

**Levy & Co.
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Druggists' Labels,
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Something entirely new. Lighter and much cheaper than rubber. Very durable.

WE HAVE ALSO GREAT VARIETY IN

Hair Brushes
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FANCY PERFUME ATOMIZERS
 New Designs

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In Ivory, Aluminum, Ebony, Celluloid, etc., etc.

All styles.
 All sizes. **Chamois Vests**

Trade Notes.

J. A. Shaw, druggist, Windsor, N.S., is dead.

Dr. Gear has purchased the drug stock of G. A. Small, Erin, Ont.

G. A. Gamsby, druggist, Gananoque, Ont., has made an assignment.

W. B. Fullerton, druggist, Gananoque, Ont., is offering to compromise.

G. N. Babcock, Drayton, Ont., has sold his drug business to R. Henderson.

Dr. W. L. Smith, Cove Barrington, N.S., is offering his business for sale.

G. W. Hulbert has purchased the drug business of S. L. Howe, Thornbury, Ont.

L. E. Bolster has purchased the drug business of R. C. Ward, Sturgeon Falls, Ont.

Waker & Co. (Ellen A. Walker) have opened a new drug store at New Glasgow, N.S.

G. N. Petrie has purchased the drug business of R. C. Houston, Avenue road, Toronto, Ont.

H. Turner, druggist, 287 Gerrard east, Toronto, has been closed under chattel mortgage.

A. Trotter, of Trotter & Co., Windsor, Ont., has taken to himself a wife, and we wish Mr. and Mrs. T. every happiness.

Dr. Brunskill, formerly of Walkerton, Ont., has purchased the drug business of W. Coleleugh, Mount Forest, Ont.

C. E. Borden has entered into partnership with H. H. Cochran, druggist, of Canning, N.S. Firm name is Borden & Co.

W. W. Macdonald, O'Leary, P.E.I., has sold his drug business to Turner & Barclay (H. W. Turner and James Barclay).

J. L. White, lately with Langley & Henderson Bros., Victoria, B.C., is about starting a drug store in the West Kootenay district.

The annual minor examinations of the Manitoba Pharmaceutical Association will be held in Winnipeg, December 14th, 15th, and 16th.

C. A. Nelson, druggist, doing business under the name of Laviolette & Nelson, Notre Dame street, Montreal, has made an assignment; liabilities about \$12,000.

Runyons & Butler are opening a department store in London, Ont., and G. A. Peaker, formerly in business on Spadina avenue, Toronto, will take charge of the drug department.

Dr. R. O. Snider has removed his drug business from 69 King street west, Toronto, to three doors west of his old stand, and now has a very pretty store on the corner of Leader lane and King street.

R. Ferrah, of Galt, and H. J. Cant, formerly of Plainfield, N. J., have purchased the drug business of the late W. G. Smith, Guelph, Ont. The business will be carried on under the firm name of Cant & Co.

The veteran druggist of Petroha, Mr. Geo. Denham, has built a fine store and dwelling on the site of his old building, and when finished will have one of the most modern, up-to-date drug stores in Western Ontario.

David Watson, jr., son of Mr. D. Watson, of Kerry, Watson & Co., Montreal, was tendered a complimentary dinner by his friends on the eve of his approaching marriage. The dinner was held in the club room of the Windsor Hotel.

E. W. Cameron has purchased the business of Dr. Higinbotham, Brantford, Ont. It requires some nerve to take hold of a business in Brantford, where Carter's liver pills have been sold at five cents a box, and other goods in proportion.

Nova Scotia Notes.

Dr. S. N. Miller, of Middlesex, has been improving his store, and intends that it shall be second to none in the Valley.

Mr. Martin, for so many years with C. E. Borden, has purchased the stock of Mr. Starr Eaton, of Canning, and proposes conducting a store there. Mr. H. H. Cochran, nephew of Mr. C. E. Borden, has been taken into the firm, and they are now doing business under the name of Borden & Co.

J. A. Shaw, one of the oldest and most respected residents of Windsor, and one of the senior druggists of Nova Scotia, died very suddenly a few days ago. Mr. Shaw was largely interested in shipping, and also held a very large life insurance. He was rated among Windsor's wealthy men. He will be much missed from his accustomed place.

Tupper Foster has closed his business in Canso, and with his brother, W. T. Foster, has opened business in Antigonish under the name of Foster Bros. These gentlemen, being well and favorably known in Antigonish, start under promising conditions.

Dr. William McKay, of Reserve Mines, C.B., is about opening a pharmacy at Old Bridgeport.

Mr. James Burns, who has been quite ill for some months, has now recovered, and is at his usual place.

Mr. R. D. Stiles, of Pictou, made a flying visit to Halifax one day last week.

Mr. J. H. Angwin, of Brown & Webb, who has been seriously ill for some months, is recovering, and able to be at his office a part of the day. We hope soon to see Mr. Angwin in his usual health. Mr. J. Godfrey Smith has been seriously indisposed for some time, but is now about again.

Mr. Frank C. Simpson, of Simpson Bros. & Co., met with a painful accident ten weeks ago, slipping on a wet floor, and injuring his back, which confined him to the house for some time. Mr. Simpson is a thorough beaver in all that he undertakes.

The regular meeting of the Nova Scotia Pharmaceutical Association was held on the 10th ultimo. Same was largely attended, and matters found to be in the usual flourishing condition. The executive are planning for a large attendance at the annual meeting in June, when they have the prospect of a visit from the genial Professor Remington, of the Philadelphia College of Pharmacy.

Correspondence.

The Editor does not hold himself responsible for the opinions of correspondents. Correspondents must in all cases send name and address, not necessarily for publication.

Mr. McCann and the Present Situation.

Editor CANADIAN DRUGGIST.

DEAR SIR,—I have never been enthusiastic over the methods employed by the O.S.R.D., as their president and ex-officers in Toronto know. Their policy was so unanimously endorsed by the trade generally that I thought it unwise to dissent, and so merely kept my mouth closed and attended to my own business. In the first place, I was opposed to the principle laid down in the agreement that the onus of maintaining the prices fell upon the retailer. In the second place, I thought it uncalled-for for the Wholesale men to attempt to force the retail druggists to deal exclusively with them in exchange for their support. In the third place, viewing the agreement from a business standpoint, I look on it as being impracticable.

Now, speaking upon the first point, it may be that I rate the position of the retail druggist *too highly*. That is a matter of opinion upon which I trust we may agree to differ somewhat; but this is my view: The retail druggist, being personally acquainted with his customers, being in direct touch with the people in his vicinity, having the confidence of the majority who deal with him—possesses an influence in his locality a hundredfold greater than any patent medicine man or his remedy. Now, if this is sound logic, we have a start made. If this is true, what power is there to compel the druggist to introduce and keep in stock Blank's liver pills? There is no *lure* to compel him, but our opponents say with a united clarion voice, "We'll advertise them and make you keep them. If you don't we'll put them into the grocery." These are the only clinching arguments that I have heard up to date.

Let us look at them. I venture that I voice your sentiments when I say that I never feared competition from a grocer handling medicine like oil and water, the

two don't mix. No one knows better than these same manufacturers that to put a remedy into grocery hands and advertising it so is to kill it outright. The only spot where they could expect to do any business would be in the very rural districts. As to compelling us by advertising to keep the remedy, let us figure it out for them. Advertising to do this means hundreds of dollars per day paid out by our firm. Let us allow that every druggist in town lost two sales daily (an exceptionally heavy demand), what would each druggist individually lose? Not much beyond the price of his cigars. Who could stand it the longest, Mr. Blank with his millions, or the druggist of Ontario? We could stand it for years without noticing the difference. Don't you think a few months would begin to look serious with the one?

Now, having these views, I pick up the agreement and I read, "The druggists must first form themselves into a solid body, and must agree to maintain the prices, not to substitute." If they do all this, then the manufacturers will not sell cutters, always provided, if the trade live up to the agreement.

Now, I ask you as a business man, in your sober moments, if we are the actual channels through which these manufacturers must reach the people, would it not become us to claim our rights by simply demanding, that if these manufacturers desire to use our stores and our time to supply the people demanding them to see to it that their remedies are kept out of illegitimate hands, and, failing to do so, out they go at once, and act on their failure to comply? This seems to me nearer right than the conciliatory course. The conciliatory course is the very course these men are profoundly anxious you should take.

Again, I thought it uncalled for on the part of the wholesale men to ask the druggists to bind themselves to deal exclusively with them in exchange for their good will. I doubt very much if the leading wholesalers gave the matter very much thought. Is it not a fact that in helping the retailer they are helping themselves: anything that is a benefit to the retail trade is good for them. If the cutting system would kill off all the retailers, where would the wholesale men sell goods? Our interests are identical. There is no reason why we should quarrel, and so far as I know the very best feeling exists between the wholesale and retail trade. Long may it last! But let us thoroughly understand the situation. The retailer could get along without the wholesaler at all, but, on the other hand, the wholesaler could not get along without the retailer.

In my estimation, it would have been more in harmony with the state of affairs had the wholesale men spoken out thus: Anything that affects the retailer affects us. We are right in line to aid our customers, the retailers, in any way we can, and to act as some of the loyal wholesalers have acted, by being goods right, cutting

down profits, and striving to put their customers on an equal footing with the largest importers. The wholesale houses that have adopted this policy need no agreement. They have a bond that is stronger than an agreement.

Now I come to the last statement, "That the scheme is impracticable."

The charge is made against the retail trade that there are those amongst us who will not keep their agreement: that they will sign it without having any intention of adhering to it. We admit it; and, furthermore, we know that no matter how united you make the trade these same characters will be found.

But the very same species of men are to be found amongst the wholesalers and the manufacturers. There are wholesalers who not only sign the agreement, but talk loudly about how closely they are living up to it, and who find the most fault about the way other men are acting, while at the same time they are sending out goods at the back door to the very people they have agreed not to supply.

There are manufacturers who sign the agreement, and then sit up at night planning different methods by which they can evade the agreement. Not only this: there are men outside the medicine line who handle certain medicines in their general business. There are continually new men starting up who get a supply or two straight enough, and then sell wherever they can.

Not only so. There are retail men continually getting into financial difficulties who will not stop at the agreement in order to make a few needed dollars.

If these statements I have made are correct, if the conclusions I have come to are sound, and based upon what we know to be the present-day methods of business, then I submit there are but two doors open to us by which we can get out of the difficulty into which keen competition has brought us, namely: Either by meeting the cut prices on these patent medicines, or by not keeping them in stock. The first of these two courses would very likely be the one adopted by a shrewd business man, not acquainted with the unusual circumstances that surround the retail drug business; and I am free to admit that it would be the sound course for certain stores where the purely drug trade and dispensing is largely supplanted by that of sundries and patent medicines. But, viewing the matter strictly from a city of Toronto standpoint, I am strongly of the opinion that the latter course is much the better. Let us look at it for a moment. Notwithstanding all that is said to the contrary, Toronto is a good town for drugs and dispensing. Because there are fully thirty per cent. more stores than are needed does not alter the truth of this statement. Furthermore, a good feeling exists between the majority of physicians and druggists; and this city, being spread over such a large territory, it is both expensive and inconvenient for a doctor, whose practice extends over the whole

city, to supply his patients with medicines from any one point. Just here, brother druggists, let us give the physicians that honest consideration that is due them. Can we expect their assistance and their co-operation if we placard our stores as agents for quack nostrums, and pay greater attention to pushing our own remedies and advertised patents than to that branch of our business we have been educated for?

We cannot, if we are to hold and to increase the dispensing; we must act fairly and honestly with the physician. I would here state, so far as I know, the majority of our city druggists do this; but in one particular we *all* fail, and largely because of custom and habit, and that particular is, we give too much prominence in our stores to patent and proprietary medicines; and if private conversation with the druggists counts for anything, the day is not so far distant when there will be a number of drug businesses here in Toronto conducted independent of the patent medicine trade.

G. A. McCANN.

Toronto Retail Druggists' Association.

The Toronto Retail Druggists' Association held a meeting for reorganization on Friday, Nov. 20th. There was a fair attendance.

The chair was occupied by Mr. F. W. Flett, Mr. Campbell acting as secretary.

A letter from Mr. Hargreaves was read, in reference to the prices of patent medicines. The subject was discussed at some length, and the matter was finally left for the O.S.R.D. to deal with.

The following officers were elected: President, G. A. McCann; vice-president, W. H. Gilpin; secretary, C. H. Couen.

It was resolved to allow the officers to select the Executive Committee from amongst the members of the association.

Mr. McCann, on assuming the chair, reminded the members that they had placed him in the position of president against his will, but, now that he was there, he felt free to declare his policy and what he considered should be the policy of the association. In the first place, it must be on different lines from its predecessor. The most important matters that could be brought before an association of its kind were not such as they had heretofore dealt with. The consideration of social and scientific questions were those with which they should deal; in fact, it should be a kind of mutual benefit society, discussing preparations of pharmaceuticals, comparing notes on dispensing problems, etc., as well as looking into the business part, viz., the value of advertising, and how to do it to advantage, the importance and designing of window dressing, and many other subjects of equal interest.

The society will meet on the second Friday in each month.

Pill and Powder BOXES

We are the headquarters in Canada for every line of Druggists' Boxes, Labelled or Unlabelled.

Paper Boxes

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Our Impervious Paper Boxes are the best on the market.

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**Somerville's
Pepsin
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It is the Gum the others are selling.

It is admitted to be the best Pepsin Gum made in Canada.

Our Carving Set Premium Packages are having a great sale.

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For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

££ 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at \$1.00. Is wanted by every Farmer and Breeder in the Dominion.

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Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.



CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and \$1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton, and London, Ont., and Winnipeg, Man.

The McCORMICK MANUFACTURING COMPANY, Limited.

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Lime Fruit
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 Raspberry
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the Cure of COLDS, HOARSE-
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A CREAM PITCHER

With 36 Bars regular Tutti Frutti, being the same as one box.

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Adams & Sons Co.

11 & 13 Jarvis Street, - - - Toronto, Ont.

Gleanings.

Eucaine.

Under this name a new substitute for cocain has been brought out by a Berlin dentist named Kressell. It is prepared synthetically, and chemists describe it as "a methylo estero of benzo-gloxy piporidine carboloxylic acid." It is claimed for it that it does not affect the heart, produces more extensive anæsthesia than cocain and is non-poisonous. Probably it will also be much cheaper.—*British Journal Dental Science*.

A New Source for Alcohol.

It is proposed to use dates for the production of alcohol. According to Luboy they contain sixteen per cent. of dextrose, and one hundred kilos will yield about thirty-eight litres of ninety per cent. alcohol.

Sanoform.

This is the latest substitute for iodoform. It is obtained by the action of iodine on oil of wintergreen, and is the methyl ether of di-iodosalicylic acid. It is a white, odorless, and tasteless powder, and can be heated up to 200° C. without decomposing. It is soluble in 200 parts of cold or 10 parts of hot alcohol, and readily in ether, chloroform, benzole, and carbon disulphide, but very insoluble in water or glycerine. It contains 62.7 per cent. of iodine. The results of its use in surgery and gynecology are extraordinarily good; healing ensues more quickly and more certainly than with iodoform, signs of irritation are absent, and the drug is both odorless and non-poisonous. Sanoform can be used as powder, as a 10 per cent. ointment, or in a 1 per cent. solution in collodion. Schlesinger particularly recommends sanoform gauze (10 per cent.), which, owing to the high temperature at which the drug decomposes, can be easily sterilized.—*Chemist and Druggist*.

Potent Diphtheria Antitoxin.

Dr. G. E. Cartwright Wood, one of the workers at the Royal Colleges' Research Laboratories, on the Victoria Embankment, has made a name for himself as an authority on diphtheria antitoxin, and his last contribution to the subject will maintain it. Writing to the *Lancet* (p. 1145) he explains that highly potent serum is not only dear, but scarce. A single dose of Behring's costs £1 11s. 6d. It is to be observed, however, that the highly potent serum cannot be obtained in unlimited quantities, and the reason why has never been explained. Dr. Wood has found it out, and it is because few horses can produce this serum. In a communication to the Royal Society early in the year, he showed that when horses are treated with Dr. Sydney Martin's diphtheria albumose for

a fortnight, then with the so-called ferment toxin, a relatively powerful serum is produced. He reports that by taking advantage of the cumulative action of the poisons, through frequent injections of the toxin, the horses are kept continuously under their influence, and, in some cases, serum of high potency is produced. He has had nine horses under this treatment, and the following table shows the antitoxin values of the serum produced:

Number of horse.	Number of normal units present per c.c. of serum.	Quantity protecting against ten lethal doses of toxin.
Horse No. 1...	1000	$\frac{1}{10000}$ c.c.
Horse No. 2...	450	$\frac{1}{4500}$ c.c.
Horse No. 3...	400	$\frac{1}{4000}$ c.c.
Horse No. 4...	200	$\frac{1}{2000}$ c.c.
Horse No. 5...	200	$\frac{1}{2000}$ c.c.
Horse No. 6...	175	$\frac{1}{1750}$ c.c.
Horse No. 7...	150	$\frac{1}{1500}$ c.c.
Horse No. 8...	80	$\frac{1}{800}$ c.c.
Horse No. 9...	50	$\frac{1}{500}$ c.c.

Considering that all the horses were treated in precisely the same manner, it is evident that horses are not alike as regards their capacity for producing powerful antitoxins; indeed, they vary in the most startling manner. It is at present impossible to give any explanation of this fact, and only extended experience with a large number of horses can settle the matter.—*Chemist and Druggist*.

New Method of Preparing Collodion.

According to its patentee, Schlumberger, a new method of preparing collodion consists in dissolving tetranitrocellulose in ethyl or methyl alcohol, to which small quantities of one of the following substances have been added: (1) Levulose, acetic, oxalic, citric, tartaric, lactic, or hydrochloric acids, or any of their salts of the alkalies, alkaline earths, or zinc, that are soluble in alcohol; (2) aldehydes of acetic and benzoic acids, or their acetals; (3) ethers of the mono- or poly-valent alcohols with the above-mentioned acids; (4) picric, salicylic, and carbonic acids, and para-amidophenol; (5) nitrobenzine, nitronaphthalin, and trinitrotoluene; (6) quinoline and pyridine; (7) urea; and (8) glycocoll.—*Phar. Zeit.*

Determination of Mercury by the KI Process.

By W. MYLES BRAMLEY.

In the determination of the strength of a mercuric chloride solution by the volumetric process with iodide of potassium, it was found that the order of procedure was important.

When 1 c.c. of the HgCl_2 solution was placed in a flask and the KI solution added to it from a burette, only 1.3 c.c. was required to produce a permanent mercuric iodide precipitate; whilst when 1 c.c. of the same mercuric solution was

diluted with water to 100 c.c. and placed in a burette, it was found that by putting 5 c.c. of the original KI solution in a flask and adding thereto the diluted mercuric chloride solution a permanent HgI_2 precipitate was not obtained until 10.4 c.c. had been delivered from the burette.

As in the text-book which I have consulted there is no mention made of the order of mixing, I thought it advisable to place this on record. It also leads me to conclude that mercuric iodide is insoluble in an excess of HgCl_2 solution quite as much as HgI_2 is soluble in excess of solution of KI.—*Pharmaceutical Journal*.

New Reaction for the Alkaloids.

A. Jaworowski, in the *Pharmaceutische Zeitschrift für Russland*, proposes as a general alkaloidal reagent a solution of sodium vanadate in water acidulated with acetic acid. This reagent is said to be exceedingly delicate with quite a number of the most important alkaloids; but, on the contrary, there are a number of others which must be in quite concentrated solution to give results of any value. The addition of any salt of copper to the reagent increases its intensity, however, to a degree which largely obviates this defect. The following is the method of preparing the reagent for general use: Dissolve 30 cgm. of sodium vanadate, by the aid of heat, in 10 c.c.m. of distilled water, and let cool. Dissolve a similar quantity of copper sulphate in the same amount of distilled water, mix the solutions, and add sufficient glacial acetic acid to dissolve the precipitated copper vanadate. Usually 7 to 8 drops of the acid are sufficient. The slightly turbid liquid is then filtered and is ready for use. The method of using the reagent is as follows: The alkaloid, if in the form of a soluble salt, is dissolved in 4–5 c.c.m. of distilled water; if in its proper condition, add to the solvent from 1 to 10 minims of acetic acid dilute (1:18) p. r. n., and in it dissolve a determined quantity of the alkaloid, if necessary using heat to effect solution. When cold add 1 drop of the reagent. If no precipitation occurs after the lapse of fifteen minutes, divide the solution into two parts, and to one of them add, drop by drop, the reagent, waiting and observing after each drop whether a precipitate forms. The other half is heated to boiling. If a turbidity or an opalescence occurs, separate the precipitate in the usual manner. The author has divided the alkaloids into three groups, according to their behavior toward the reagent, and gives a list of each showing the amount of reagent necessary to affect each. In this manner it is easy to determine the group to which an alkaloid thus separated belongs.—*National Druggist*.

Iodogenin is a mixture of potassium iodide with pulverized charcoal, made into balls which are used for fumigating.

Saponin Emulsions.

According to Schazki (*Rev. Pharm. des Flandres*) saponin is preferable to gums, alkali, yolk of egg, or other substances used for pharmaceutical emulsions. The following are the formulæ recommended:

CASTOR OIL EMULSION.

Castor oil.....	30 gm.
Saponin.....	15 cg.
Water.....	150 gm.

COD LIVER OIL EMULSION.

Cod liver oil.....	100 gm.
Saponin.....	20 cg.
Water.....	100 gm.
Oil of peppermint.....	2 drops.

COPAIBA EMULSION.

Balsam of copaiba.....	5 gm.
Saponin.....	12 cg.
Water.....	95 gm.

CREOSOTE EMULSION.

Creosote.....	1.25 gm.
Oil of sweet almonds.....	10 gm.
Saponin.....	6 cg.
Water.....	100 gm.

IODOFORM EMULSION.

Iodoform.....	2 gm.
Oil of sweet almonds.....	8 gm.
Saponin.....	18 cg.
Water.....	100 gm.

CHLOROFORM EMULSION.

Chloroform.....	50 cg.
Oil of sweet almonds.....	15 gm.
Saponin.....	12 cg.
Water.....	100 gm.

CAMPHOR EMULSION.

Camphor.....	80 cg.
Oil of sweet almonds.....	15 gm.
Saponin.....	12 cg.
Water.....	100 gm.

SANTONIN EMULSION.

Santonin.....	q.v.
Castor oil.....	15 cg.
Saponin.....	12 cg.
Water.....	100 gm.

Employed thus, in this proportion, saponin is absolutely harmless.—*Pharmaceutical Journal*.

Medicated Confections

VANILLA LICORICE TABLETS.

Crushed sugar.....	14 pounds av.
Extract of licorice.....	2 pounds av.
Glucose.....	2 pounds av.
Water.....	4 pints
Brown coloring.....	q.s.
Vanilla flavoring.....	q.s.

When the sugar and water reaches a sharp boil, add the glucose, and continue the boiling up to strong crack degree. Pour out the batch on an oiled slab, and when sufficiently cool work in the licorice, vanilla flavoring, and enough color to make the batch a deep brown. Pass the mass through the large tablet rollers.

LICORICE DROPS.

Crushed sugar.....	14 pounds av.
Glucose.....	2 pounds av.
Extract of licorice.....	2 pounds av.
Water.....	4 pints
Brown coloring.....	q.s.

Melt the sugar in the water, and when at a sharp boil add the glucose. Continue the boiling until strong crack degree is reached, and then pour out the mass on an oiled slab, afterward adding the licorice. Work in enough color to make a dark brown, and pass the batch through the acid drop rollers.

CHARCOAL AND CAYENNE DROPS.

Crushed sugar.....	7 pounds av.
Powdered charcoal.....	3 ounces.
Cayenne.....	8 drachms
Cream of tartar.....	4 drachms
Water.....	2 pints
Jettoline coloring.....	q.s.
Cochineal coloring.....	q.s.

Having melted the sugar in the water, bring the syrup to a sharp boil. Add the cream of tartar, and continue the boiling up to strong crack degree. Pour out on an oiled slab, and cut the batch in halves. Work the charcoal and sufficient jettoline into one-half, and mould the cayenne and enough cochineal to make a bright red into the other. Place the red piece on top of the black, and pass the whole through the honey drop rollers.—*American Druggist*.

Compound Tincture Saccharated Ferric Oxide.

The following formula is recommended by Fragner (*Pharm. Ztg.*) as a substitute for Athenstaedt's tincture:

Saccharated ferric oxide.....	75 gm.
Water.....	580 gm.

Dissolve, and add:

Syrup.....	180 gm.
Diluted alcohol.....	165 gm.
Tincture orange peel.....	3 gm.
Aromatic tincture.....	1.5 gm.
Tincture vanilla.....	1.5 gm.
Acetic ether.....	1 drop

Therapeutic Incompatibilities.

Perhaps one of the most pernicious outgrowths of polypharmacy, says the *American Medical Journal*, is the compounding in mixtures or tablets of medicines diametrically opposed in physiological action. I desire here to make a plea for simples as against compounds. Suppose it should be thought necessary to give a heart stimulant. We review the fixed physiological action of the cardiac drugs. Digitalis for arterial recoil, strophanthus for ganglionic stimulation, nitroglycerin for aspiration of the over-full ventricle, belladonna to impress the check nerve and to stimulate the sympathetic, strychnia for a stimulant to the spinal cord. How absurd to have one tablet containing all of these drugs. When digitalis is indicated, nitroglycerin is contraindicated. Suppose you really want nitroglycerin or amyl nitrites, how much benefit do you suppose you would get in a tablet a week old? But of all heterogeneous compounds, cough mixtures and expectorant tablets are the most absurd. We have in one mixture astrin-

gents for relaxed mucous membrane, ipecac to promote expectoration and opium to check it, senega to stimulate, aconite to quiet, and hyoscyamus and squills with an alkali. The fact must necessarily dawn upon every intelligent practitioner that he is gradually losing the art of prescribing.

How to Keep Lemon Oil.

Messrs. Schimmel & Co., in their semi-annual report (October), say: As is well known, lemon oil is one of the essential oils which readily deteriorate when improperly kept. Some time ago we experimented with a view to ascertaining the best mode of keeping lemon oil. Common, not dehydrated oil, as well as one deprived of water by treating it with anhydrous sodium sulphate, were kept in well closed vials, partly full, partly only half filled; part of the bottles were kept for some time removed from light, and others for some time exposed to light.

The result of these experiments was then recorded in the following words:

(1) The dehydration of the oil by means of sodium sulphate is not only of no use, but rather detrimental to the oil.

(2) The greatest possible exclusion of air from the vials is necessary for the unimpaired preservation of the oil.

(3) The influence of light is injurious to lemon oil, but is insignificant in comparison to that of air.

Lemon oil, therefore, should be kept in carefully closed vials, filled up to the neck and in dark and cool rooms.

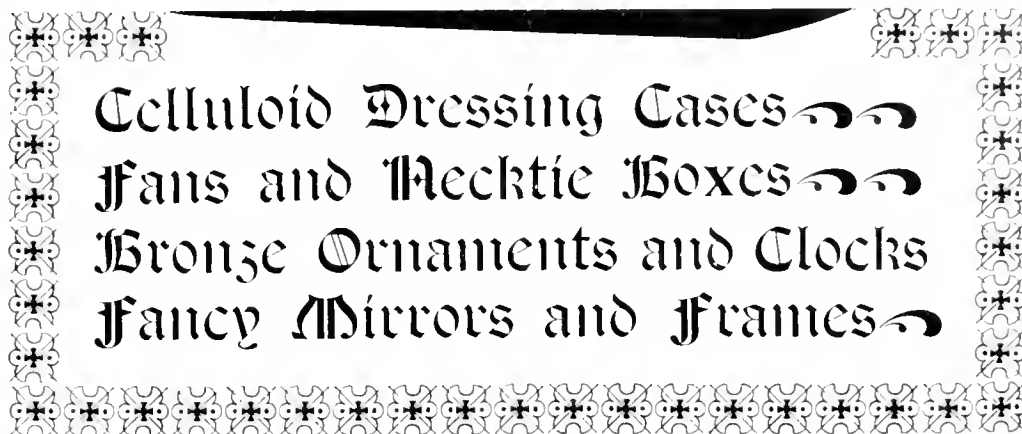
Detection of Resin Oil in Fatty Oils.

The fact that the salts of resin acids are not precipitated by "salting out" with brine solution has enabled Comette to detect resin oil when fraudulently mixed with vegetable oils. Ten grammes of the suspected oil are saponified with caustic soda; the soap obtained is dissolved in warm water, cooled, and a saturated solution of salt added; the salts of the fatty acids are thrown out, but the resins remain in solution. The liquid is filtered and acidulated with sulphuric acid, when the resin acids are precipitated in small globules, giving a milky liquid, or floating on the top in small discs. These may be collected and weighed. — *Annal. de Pharm. de Louv.*

Before cutting a man's head off in China the authorities considerably make him drunk. The beauty of this system is that a man can get intoxicated without having a head on him the next morning. — *Buffalo Express*.

Antidiabetinum is a mixture of almond oil and saccharin prepared in three degrees of strength, indicated by figures 70, 10, and 1, which show its sweetening power compared to sugar.

HOLIDAY GOODS



We show a large variety of above lines

Only New Goods and the Latest Styles

Kindly inspect our samples, and compare our prices.

Nerlich & Co., Importers, 35 Front St. W. Toronto

\$20,000 IN GOLD \$20,000

For Retail Druggists

BALTIMORE, December 1st, 1896.

To the Retail Druggist in the U.S.A. or Canada selling the greatest quantity of Bromo-Seltzer during the year 1897 at one store ONLY, subject to the conditions named, we will give a cash prize of **\$500** in gold.

To the retail druggist selling the next greatest quantity, **\$500**.

To the 5 retail druggists selling the next greatest quantity, **\$250** each.

To the 25 retail druggists selling the next greatest quantity, **\$100** each.

To the 30 retail druggists selling the next greatest quantity, **\$50** each.

To the 200 retail druggists selling the next greatest quantity, **\$25** each.

To the 625 retail druggists selling the next greatest quantity, **\$10** each.

To the 500 retail druggists selling the next greatest quantity, **\$5** each.

Total, 1,387 prizes - \$20,000.

Requirements and Conditions.

1. No druggist is eligible for competition who sells Bromo-Seltzer for less than 10 cts. small (or 4 bottles for 25 cts.) 25 cts. medium, 40 cts. large, 75 cts. half-pound.

2. Druggists entering this competition will be required to send us on the last day of December, 1897, all of their bills or invoices from their wholesale druggists or jobbers, showing the quantity of Bromo-Seltzer purchased during the year 1897. These bills or invoices must be accompanied by a statement sworn to before a notary public certifying that the bills sent us represent goods sold only at retail, and at prices not less than stipulated above. As soon as prizes have been awarded, the bills will be returned to the respective druggists.

3. Positively no account of sales will be accepted in this competition unless it reaches us prior to January 11, 1898.

4. Druggists having more than one store will be allowed to compete for as many prizes as they may have stores, but under no circumstances can such druggists return all of their bills as representing the sales of one store; neither can druggists pool their sales for a prize. Names of the successful competitors will be published in the leading drug journals February 1, 1898. Prizes will be distributed Feb. 15, 1898.

We sincerely trust that retailers will appreciate our efforts in placing every safeguard possible around this competition, and we believe that the above method will insure fair play to all.

Emerson Drug Co., = Baltimore, Md.

WATSON'S COUGH DROPS

Are warranted to give Immediate Relief
to those suffering from Cold, Hoarse-
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R. & T. W. STAMPED ON EACH DROP

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MANUFACTURERS OF

All goods
Guaranteed



*Premium Mucilage
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Formerly of
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Curtis & Son's Yankee Brand Pure Spruce Gum

Is meeting with the success
its high qualities merit.

A TRIAL ORDER SOLICITED

CURTIS & SON
PORTLAND, ME., U.S.A.

Distributing agents for the Maritime Provinces:
THE CANADIAN DRUG CO., Ltd.
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MONSOON TEA

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PACKED BY THE GROWERS
And sold in the original packages, 1/2 lb., 1 lb. and
5 lb. caddies.

If your grocer has none, tell him to order from
STEEL, HAYTER & CO.
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Our "St. Augustine" (Registered) is
the perfect wine for communion or invalids.
Your wine merchant can supply you at \$4.50
a case, one dozen quarts. See that you get
the genuine article. All good articles are
counterfeited. See that our name is on label
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Our "St. Augustine" (Registered), of
1891 vintage, a choice sweet, mild wine,
and equal to imported wines at double the
price.

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BRANTFORD

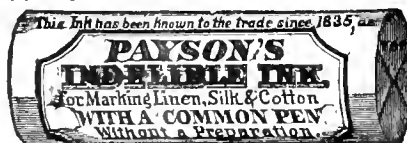
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"Surf" Sea Salt

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Common English, Right and Left,
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Hard Rubber, Reversible,
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NEW YORK ELASTIC:

Single Water Pad,	-	\$15 doz
" Enamel Pad,	-	\$10 "
Double Water Pad,	-	\$24 "
" Enamel Pad,	-	\$16 "

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Dow's Sturgeon Oil Liniment
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French Magnetic Oil
Dr. Wilson's Worm Lozenges
Dr. Wilson's Pulmonary Cherry Balsam
Dr. Wilson's Cramp and Pain Reliever
Dr. Wilson's Dead Shot Worm Sticks
Nurse Wilson's Soothing Syrup
Clark Derby's Condition Powders
Wright's Vermifuge
Robert's Eye Water
Hurd's Hair Vitalizer
Dr. Howard's Quinine Wine
Dr. Howard's Beef, Iron and Wine
Strong's Summer Cure
Dr. Howard's Cod Liver Oil Emulsion

The Medical Profession a Privileged Class of the Community.

It is frequently urged that there should be no privileged classes in this republic of ours, and that class legislation is inimical to republican institutions. Whenever the medical profession ask for a medical bill someone is sure to object that physicians are seeking to make a close corporation of their business, and that injury will be done to those who have already practised medicine successfully without any such restrictions as are now asked. It therefore becomes pertinent to ask whether the medical profession has the right to expect class legislation granting physicians privileges not possessed by those engaged as artisans and mechanics.

It is claimed by many that the medical profession does not seek class legislation, and that medical bills have as their only object the protection of the public from ignorance and cupidity. But in our own study of the subject we have come to the conclusion that the statement contains only half the truth, and that it is for the public good that the practice of medicine be separated from the vocation of the merchant and mechanic, and made a special class by itself, with special privileges distinguishing it from the trades.

We have several reasons for the belief that medicine should be considered a privileged class of the community. In the first place, its practise requires a much higher education than demanded by the trades; greater intelligence is required to practise the art; greater responsibility entails on the physician, and greater dangers threaten the community from abuse. In the next place, what are known as business methods are denied the physician from the very nature of his business. While the merchant can advertise his wares and create a demand for them by claiming marvellous quality of texture and lowness of price, the physician cannot advertise to cure disease, his vocation being merely to assist nature in her efforts, and guide the patient to recovery through rational channels. Again, he is often called upon to treat the poor, who cannot pay him for his services, and, therefore, the practice of medicine is philanthropic.

The physician who practises medicine in a conscientious manner is the servant of the public in a way that no other class or vocations can lay claim to. The physician is called on at all hours of the day or night. He is obliged to give up many pleasures and privileges that the humblest artisan may enjoy; he is adviser, confessor, friend and brother to rich and poor alike. No man occupies such close and confidential relations as the family physician; no man has greater opportunities of evil, and temptations to wrong. And yet what class of the community is more worthy the trust reposed in it by the public than the medical profession?

Now, it stands to reason that a class in the community that comes into such close and intimate contact with family life, that

is entrusted with secrets that are of the most sacred nature, that requires a broad and liberal education, and a high degree of technical skill, should have special consideration from the community in regard to legislation in all matters affecting the personnel of the profession itself, and concerning the protection of the practitioner from invasion from without.

On the other hand, the public has a right to demand the highest motives and service from the profession in exchange for this protection. It has a right to demand that physicians shall study the causes of disease and their treatment, and publish the results of their observations for the public good. It has a right to demand that the profession shall protect the public from contagious diseases by quarantine, by the study of preventive medicine, by the education of physicians in every new discovery in hygiene, by teaching the public laws of health, and by every other known means to prevent disease in the community.

It is admitted that medicine is a liberal and philanthropic profession. It is admitted that the success of the physician in removing the cause of disease lessens at the same time the necessity of his services, so that, as the health of the community improves, his chances of obtaining a livelihood in the practice of his profession grow less and less. Why should it not also be admitted that the physician should receive in exchange for his self-denying labor special privileges in the form of protection from the quack and impostor by restrictive legislation?

If anyone wishes to test the altruistic nature of the services demanded of the physician let him call up the leading physician of the city some cold stormy night in the depth of winter and ask him to attend a sick and suffering patient. How promptly and cheerfully he responds, and how grateful is the heart of the anxious parent or child for the relief given. Now, let him call up the leading merchant of the town, under the same circumstances, for some purchase that he may desire to make. It is not necessary to describe the probable result, or repeat the language that would likely be heard from the merchant under the circumstances.

The principal aim of medical laws is to ensure that no one who has not proved his possession of both practical and theoretical education shall practise medicine. If the actual effects of ignorance, cupidity, and pretence could be plainly stated, the demand for correct legislation would be so great that the profession would not have to ask for it. It would be instantly seen that a business in which health and life are at stake is in need of systematic regulation. On account of the ignorance of the public in matters medical charlatanism has always succeeded oftentimes better than legitimate practice. This being admitted is only a stronger argument in support of the theory that legitimate practice should be protected by law. Further, the practice of medicine

should be hedged around with such barriers that only those who are competent from preliminary education as well as medical training can enter the profession, and the vocation should be made a remunerative one, so as to attract into the ranks of the profession the very best talent and education among the youth of the land. Clearly, then, it is to the interest of the community that the medical profession should constitute a privileged class, that the practice of medicine should be regulated by law, and that the vocation of the physician should be a dignified calling equal in social status to that of any other walk in life.—*Dr. F. E. Stewart, in The New Ideal.*

The Selling of Proprietaries.

In the concluding paragraph of the editorial in the *October Report*, on "The Legal Status of the Rebate System," we expressed the opinion that the control of the selling prices of proprietary medicines, so that ruinous competition might be prevented or minimized, rested wholly in the hands of the proprietors of such products, that there must be some plan whereby manufacturers can adequately protect their agents in the sale of their goods, and, if there was not, the logical effect of the absence of protection would be that the agents themselves would become manufacturers also, and competitors.

The whole question of the control of the selling prices of proprietaries is simply a question of business. It is not now a matter of ethics or sentiment. Which course of action would better pay the manufacturer—to guard the interests of his agents, the wholesale and retail dealers, or to ignore them? First thought suggests that it would be more profitable for the manufacturer to sell all the goods he could at the best prices, and let his agents take care of themselves. His profits would be secure, and why should he care for those of others? But a wiser business judgment tells the manufacturer, or should tell him, that there are serious dangers in such a course. His interests are bound up in the interests of his agents. The retail agents, especially through the absence of adequate protection, and in the presence of ruinous competition, have come face to face with the fact that it is simply idle business folly to handle goods which do not yield enough profit to pay for the cost of their handling. The retail agents must make financial ends meet. Self-preservation is Nature's first law. The agents have technical pharmaceutical skill, and what is more logical than that they should come to apply that knowledge to the preparation of proprietary remedies, and become manufacturers themselves?

This practice among retail druggists has been steadily growing in recent years, and, if something is not done, it will be simply a question of time until each of the larger manufacturers will have 45,000

competitors to meet in his own field. We are informed that the country stores, groceries and general stores of this State, and, perhaps, elsewhere, upon whom the manufacturers have been depending, will not handle proprietary medicines any longer, because there is no profit in them. The same thing is true in this city. If the retail druggists were to throw them out there would be no longer an outlet for their sale, and manufacturers would have to depend entirely on cutters, and not one-fourth of the public would go to them. True, the larger manufacturers might establish agencies in the larger cities; but with the active opposition of the many retail druggists against the few agencies, such an act would be a suicidal business policy.

We hardly think it possible, at this late day, for manufacturers to prevent the selling of proprietaries at cut rates, but we do think it possible that they can minimize the existing ruinous competition among retail druggists by making the conditions of purchase of goods equal between retail druggists and cutters. The cutter makes his profits on his special discounts. By buying in large quantities he can sell goods at retail, in some instances, for less than the retail druggist can buy them, and then make a profit. This is unjust. If manufacturers would have but one wholesale price for goods, whether the quantity bought was 1 dozen, 1 gross, or 1,000 gross the conditions of purchase would be made equal to all, and the ruinous competition that exists would be minimized in a day. Doubtless, at first thought, it may seem more profitable to sell 1,000 gross of an article for a heavy discount than it would be to sell 1,000 separate 1 gross lots; but we question whether there would be any practical difference to the manufacturer in the end. The heavy discounts now allowed on large quantity orders would probably more than pay the increased cost of handling a larger number of small quantity orders, and there would be this gain to the manufacturer, that he would secure the active co-operation of retail druggists in the sale of goods. The situation would be further simplified if manufacturers would market their goods only through wholesale druggists. By this means individual manufacturers could more readily exact conditions of purchase and sale.

It may be said that such a course of "one price only" would be contrary to the laws of trade. It might be if the articles handled were of known composition, and subject, in selling price, to the law of supply and demand. But since they are entirely proprietary in character their composition not being public property—their prices are not governed by the laws of commerce, but are arbitrarily fixed by the manufacturers.

Horace Greeley once said that the way for the government of the country to resume specie payments was to resume. The way for manufacturers to

protect their retail agents in the sale of goods is to protect. One thing is certain, that if these agents are not going to be better protected in the future than they have been in the past they are simply going to protect themselves.—*Alumni Report, P.C.P.*

Department Store Pharmacy.

Pharmacy, being a department of medical science and practice, should be a liberal profession like the practice of medicine. The vocation of the pharmacist should be a peculiar calling in which technical knowledge and skill should win; not purely business methods. The pharmacist's thoughts should be more on how he can advance the knowledge of his art among those who are practising it as a profession than how he can conceal that knowledge for money-making purposes. He should remember that man is a drug-loving animal, and seek to protect him from the wiles of the charlatan and quack, not unite with them in deluding the public. The pharmacist who practises pharmacy as a liberal profession is a check on self-medication by the people, and an aid to the true physician in relieving the cause of suffering humanity; not one who aids humanity to suffer. It must be evident that such a pharmacist does not stand an equal chance with the business man, who, without knowledge of the effects of drugs, or the means for preparing and dispensing them in a proper manner, enters the sacred domain of pharmacy to make money out of the suffering sick. Such a one will do all in his power to increase self-medication. The more medicine people take the more money he makes. He belongs to the same breed as the nostrum maker, who devotes his efforts to creating a demand for medicine, and can see no more reason why he is doing a moral wrong to the community than the merchant in silk who would that all the world wore silk, and does what he can to convince mankind that silk should be worn.

Now, as the practice of true pharmacy requires a special education and training not required of the merchant; and as those who practise it as a liberal profession are giving humanity a much higher class of service than the merchant in medicine; and as the professional man is denied resort to business methods for creating a demand; and as he cannot secure a living income in competition with those who employ the ways of the merchant, it stands to reason that it is to the interest of the community that pharmacy should be separated from the trades and made a liberal profession, and the pharmacist protected from the so-called patent medicine manufacturer, department store and commercial competition in general, by restrictive pharmacy laws. Therefore department store pharmacy is an evil because it is taking out from the practice of pharmacy all financial inducement for educated men to enter or remain in the

profession, and forcing those who do remain to resort to the methods of the business man to make a living, to the neglect of scientific work and research, and the effort to benefit the community by protecting it from the pretence of commercialism.—*New Idea.*

Pharmacy Reform Should Commence at Home.

The majority of druggists spend too much time in fighting the outside enemy, while the domestic fiend is given a chance to bring in his fine work. They study the problem as to how they can cut another cent on Dr. Humbug's cure-all to go their neighbor "one better." If they would spend the same amount of time in thinking as to how they could improve their prescription department, the true pharmacy, they would do much better. The people in general are only too willing to give a druggist his due, providing he can impress them with the conviction that he is a druggist, and not a patent medicine vendor. Show the people that you are a druggist; that your laboratory is more than the mere sign in large type displayed at the back of the store. Show the physicians that while you dispense Dr. Humbug's syrup when called for, you have a syrup made in your own laboratory which will give more satisfaction. The public soon finds out a "druggist in a true sense of the word," and his reward will be the physicians' confidence and an increase in the prescription department, the true pharmacy.—*J. Diner, Bulletin of Pharmacy.*

To Remove a Foreign Body from the Nose, Urethra, etc.

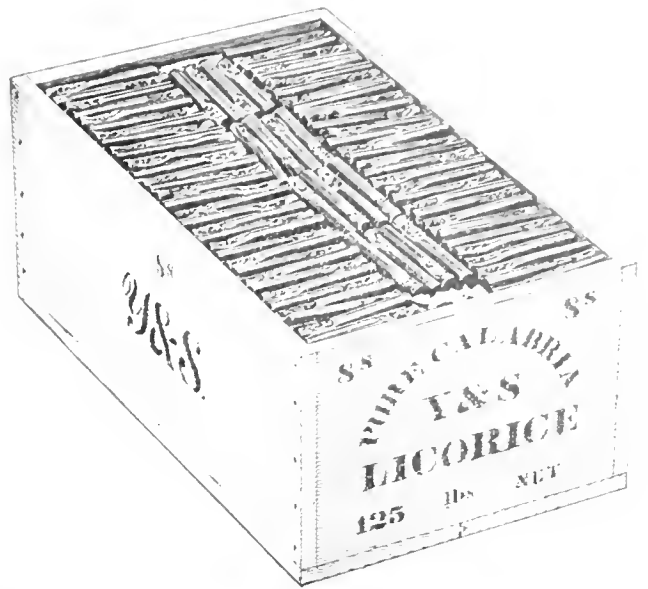
Beugnies describes a simple arrangement with which he removes foreign bodies from small passages. A hole is bored in the end of a probe and a thread fastened in it. This is then introduced into the passage and carefully pushed past the foreign body. The string then held in one hand and the probe in the other, the little whip thus forms a loop with which the foreign body is easily withdrawn.—*Gaz. Med. de Lieg.*

Antibakterin is a recent addition to the number of substances which have been recommended for infectious diseases, and particularly for tuberculosis. Antibakterin was described by Dr. V. Wachter at the recent meeting of the German Naturalists and Physicians as consisting of an orthoboric acid ethyl compound containing iron, which is to be used as an inhalation in conjunction with steam. The preparation forms a greenish yellow liquid, and, according to Dr. Wachter, is non-toxic.

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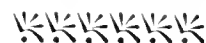
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NEW YORK.

The Metric System of Weights and Measures.

The United States Congress has never seen fit to exercise its constitutional power in regard to fixing the standard of weights and measures, but has left the states to establish such regulations as seemed to be necessary. The importance of uniformity was urged by President Washington in his message to the first congress, and a very elaborate report on the subject was submitted by John Quincy Adams when Secretary of State, in 1821, but the recommendations were never embodied in a statute.

By act of congress, May 19th, 1828, the brass troy pound weight, procured by the minister of the United States at London, was made the standard troy pound of the United States mint; and a series of standard weights corresponding to this was ordered to be made, from the hundredth part of a grain to twenty-five pounds.

The first and only general act of congress relating to weights and measures is that of July, 1866, which legalizes the "Metric System." It does not make the use of the weights and measures of this system obligatory, but declares their use to be lawful. A determined effort is now being made both in this country and England to make the metric system obligatory, so that it may come into general use in both countries. The final end in view is the establishment of this system as an international system of weights and measures to be employed by all nations. The advantages are apparent.

The standard of the metric system is the metre, which is the unit of length. The metre was obtained by a measurement of the quadrant of a meridian of the earth, and is about one forty millionth of the circumference of the earth at its poles. Practically, it is the length of certain carefully preserved bars of metal from which copies have been taken. It is equivalent to about 3 feet 3 inches, and $\frac{3}{8}$ of an inch.

The unit of surface of the metric system is the are, which is the square of ten metres, or, in other words, the square of a dekametre, and is equivalent to a square whose side is eleven yards.

The unit of capacity is the litre, which is the cube of a tenth of a metre, or, expressed in metric language, the cube of a decimetre. In other words, a cubical vessel whose sides measure a decimetre (inside) holds a litre, which is equal to 2.1134 pints.

The unit of weight is the gramme, which is the weight of that quantity of distilled water, at its maximum density (49 c.), which fills the cube of the one hundredth part of the metre (cube of a centimetre, or, in other words, cubic centimetre, c.c.). The gramme is equivalent to 15.43235 grains, or about 15½ grains.

The denominations of the metric system are multiplied by the Greek words, "Deka," ten; "hecto," hundred; "kilo," thousand; "Myria," ten thousand. They

are divided by the Latin words, "deci," one-tenth; "centi," one hundredth; "milli," one thousandth.

We have, therefore, the dekametre, hectometre, kilometre, and the decimals, decimetre, centimetre, millimetre. In the same manner we have the kilogramme, milligramme, centare, etc.

The following table will illustrate the matter graphically.

1 millimetre, written	0.001
10 millimetres make one centimetre, written	0.01
10 centimetres make one decimetre, written	0.1
10 decimetres make one metre, written	1.
10 metres make one dekametre, written	10.
10 dekametres make one hectometre, written	100.
10 hectometres make one kilometre, written	1000.
10 kilometres make one myriametre, written	10000.

By substituting the words, are, gramme, or litre, for metre, in the above table, and using the same prefixes, a set of tables may be made which will graphically represent all the denominations of the system.

In writing prescriptions, and in dispensing, solids should be weighed, and liquids measured. This rule should always be observed to secure uniformity in dosage. In the practical working of the chemical laboratory, the gramme and its divisions have been used for weighing, and the cubic centimetre (c.c., or fluigramme) for measuring liquids, ever since the introduction of the system; and no trouble has been experienced in working under this rule. A gramme and a cubic centimetre of distilled water are identical, but owing to greater or less density cubic centimetres of other liquids weigh more or less than a gramme. But if the c.c. is taken as a unit of capacity only, and the gramme as a unit of weight, all difficulty is avoided. For example, dissolve one gramme of sugar in sufficient quantity of water to make 10 c.c. It is evident that each c.c. of this solution contains 1 decigramme of sugar. By keeping the c.c. intact and varying the strength of the solution, each c.c. can be made to contain any stated amount of sugar from saturation to infinity.

Of course the only way to learn the metric system so that it may be of practical use is to learn to think in it. There is no use of expecting proficiency if the older systems are to be used as crutches. Better discard the new system altogether than to go around like a cripple. Think in metres instead of yards, decimetres instead of inches, kilometres instead of miles, grammes instead of grams, cubic centimetres instead of fluidrachms, and the problem of adopting the metric system will be easily solved.

Every physician and pharmacist should provide himself with sets of metric weights and measures, and use them to the exclusion of the old as far as practicable. The

greater convenience in calculation after the new system is once mastered will commend itself to all. Much of the practical bearing of the subject can be learned in no other way.

The American Association for the Advancement of Science says that the following lines are all that is necessary for the physician to learn in order to prescribe in the metric system:

1,000 milligrams make one gram.
1,000 grams or cubic centimetres make one kilo or litre.
65 milligrams make one grain.
15½ grains make one gram.
21 grams make one ounce, troy.—*Ex.*

Kipling's Rare Gift of Observation

An intimate friend of Kipling's, with whom he was for some time associated in editing a paper in India, recently remarked: "While possessing a marvellous faculty for assimilating local color without apparent effort, Kipling neglected no chance and spared no labor in acquiring experience that might serve a literary purpose." One who has been permitted to read in advance Kipling's new serial story, "Captains Courageous," which begins publication in the current number of *McClure's Magazine*, finds this habit of Kipling's especially manifest in that story. Dealing with a phase of life far apart from the ordinary—that of the Gloucester fishermen on the Grand Banks—the story reads as if some actual fisherman, suddenly lifted out of his lifelong condition and endowed with the gift of literary perspective and expression, was looking back on it and writing out his own experience. The brevity, the directness, the perfect ease and naturalness with which the daily round of labor and adventure is set forth, show that Kipling must himself have been through it all, and, by his "marvellous faculty for assimilating local color," made it, as it were, bone of his bone and flesh of his flesh.

Infection from Books.

So many well-authenticated cases of disease in which infection was transmitted by means of books, papers, and letters have been reported that the medical profession are compelled to turn their attention to this evil. With an increasing thirst upon the part of the general public for knowledge, there must be a continually growing number of circulating libraries, and consequently a greater chance of infection.

Experiment has shown that pus streptococci, pneumonia d. plococci, and the bacilli of tuberculosis and diphtheria, and others, when deposited upon the leaves of a book or inclosed in the pages of a letter, are capable, after several days, of transmitting these maladies to animals inoculated by bouillon in which pieces of the leaves have been soaked.—*Selected.*

The Science of Optics.

By LIONEL LAURANCE.

Entered according to Act of Parliament in the year 1896, by Lionel Laurance, at the Department of Agriculture.

Primary Ametropia.

The *strongest* + sph. lenses through which $V. = \frac{20}{0}$, or the best $V.$, obtainable, are given in H. in order to suppress the employment of Ac. for distance, but notwithstanding that in testing the sight you select the very strongest that can be used without causing blur you have by no means discovered the full extent of the defect.

The law of nature is that a muscle constantly employed develops and becomes strong. The hyperope is constantly using the sphincter muscle of the ciliary to accommodate, for he must, in order to see, exert that function not only for near work, as does the emmetrope, but also for distant objects. The consequence of this is that the sphincter of the ciliary develops exceedingly, becomes much stronger than the radiate, and entirely overcomes it. Therefore, unlike the emmetrope, the hyperope cannot relax his accommodation at will. The strongest + sph. lenses through which $V. = \frac{20}{0}$ will cause the Ac. to be relaxed so far as it is possible, but a certain portion is still unrelaxed.

The part of H. which can be discovered and corrected at once by means of + sph. lenses is called the manifest H., and the part that is still hidden by the unrelaxable contraction of the ciliary is called the latent H. The combined latent and manifest is called the positive or total H.

Oculists, by using a mydriatic such as atropine, paralyze, temporarily, the action of the ciliary, and can thus measure the exact amount of the total H., which is, however, never fully corrected until late in life, but about 1 D. left uncorrected, a total correction by lenses in youth and middle age not being advisable. The use of atropine has its advantages and also its disadvantages, chief among the latter being the fact that it takes a few days to thoroughly act, and for its effects to pass away, during which time the patient is unable to follow his ordinary occupation. Also the glasses fitted under its influence often prove far from satisfactory, as when the effect of the drug is gone the unequal tension of the two sets of fibres of the ciliary again shows itself.

Anyhow, an optician cannot use a mydriatic, and luckily, as a rule, more satisfactory results are obtained without its use.

The younger the person the greater is the proportion of the latent to the manifest H. The former, as has already been shown, can be exactly measured; the latter can only be calculated in this way. An emmetrope uses no Ac. on parallel rays, and the place of his P.P. will show the amplitude of his Ac., which is almost of a fixed extent according to age (see previous chapter). A hyperope with the

same amount of Ac. has his P.P. further away because he has to use Ac. to render parallel rays sufficiently convergent to be brought to a focus on the retina, and he therefore has not in reserve so much to employ on divergent rays as the emmetrope has. For instance, in H. of 1 D., the person being twenty years, and having an amplitude of 10 D., must exert 1 D. of Ac. in order to see distant objects and therefore has only 9 D. in reserve for near objects. His P.P. will be found at $4\frac{1}{2}$ inches, whereas in emmetropia with a similar amplitude it would be at four inches.

Now, having fitted the distance glasses as before directed, with these in the frame find the nearest point of V., this the P.P. with the glasses. In a given case say that + 2 D. lenses are the strongest that can be accepted, and the customer is twenty years old. You would now expect to find the P.P. at four inches, if all the H. were corrected, but instead you find that it is at five inches, showing that he can exert only 8 D. of Ac. on divergent rays, then, as according to age he should have 10 D. amplitude with the P.P. at four inches, he must be using 2 D. of Ac. over and above the glasses to focus parallel rays; he has therefore 2 D. of latent H. Without glasses he would have to exert 4 D. Ac. to focus parallel rays on to the retina, and his P.P. would be still more distant.

As the amplitude of Ac. decreases with age, so the proportion of latent to manifest H. also decreases.

A hyperope of 4 D. might have at

10 years of age	1 D. Manifest	and 3 D. Latent.
20 " " "	2 D. " "	2 D. " "
30 " " "	3 D. " "	1 D. " "
40 " " "	4 D. " "	None " "

These are but approximate figures, but they will do to convey the idea desired, as from this it can be understood that young people seldom get sufficient correction in H.

After a young person has been fitted with those lenses that correct the manifest H., and the glasses are constantly worn, the tension of the sphincter of the ciliary becomes greatly lessened, and soon some of the latent H. will become manifest. In some cases the sight will not be so good as when the lenses were first fitted, and in others it will be about the same. If he be retested a couple of months later you will find that you can increase the strength of the lenses, which increase represents the amount of the latent H. which has become manifest.

When the hyperope is under twenty years old three different tests, at intervals varying from one to three months, are necessary to properly correct the defect. When over twenty years old a couple of tests are necessary, and when over thirty one suffices, as then the proportion of

latent H. is very small. The same rules are to be followed at each test. Give the strongest lense to each eye that it will accept when the two eyes are directed to the distant test card, and which makes $V. = \frac{20}{0}$ or the best $V.$ obtainable.

Suppose that it were possible to employ a mydriatic, and you could thus learn the degree of the total H., it would not be of very much advantage, as you could not give lenses to fully correct the defect. The first correcting lenses for young people in many cases should not be stronger than those that correct one-third or one-half of the total H., and the strength can be increased gradually as the eyes learn to relax the Ac. until all the defect less 1 D. is corrected. Here is one of the advantages of testing without atropine; you cannot over-correct, as the very strongest lenses that do not blur $V.$ cannot possibly be more than what corrects the manifest H.

Let this be illustrated. A person 20 years of age has H 3 D. His $V. = \frac{20}{0}$ without lenses. The refraction of the eyes are 47 D and he exerts 3 D Ac in order to converge parallel rays to a focus on the retina; this he must do, otherwise V would not equal $\frac{20}{0}$. On testing his sight you find the strongest lenses with which $V. = \frac{20}{0}$ are + 1.50 D; with these the sight is comfortable, and he cannot take anything stronger, because he cannot relax his Ac any more. With the glasses he makes out the letters on the line No. 20, because the refraction of the eyes is 47 D, the Ac still used is 1.50 D and the lenses are 1.50 D, total refractive power 50 D, or just that quantity necessary for focussing parallel rays to a distance of .9 in. behind the cornea. If you gave him + 2 D lenses his V would no longer equal $\frac{20}{0}$, because the total refraction of the eye, the Ac, and the lenses would amount to 50.50 D, or half a diopter more than that quantity with which it is possible to get parallel rays focussed on the retina. He would with the + 2 D lenses be practically myopic 0.50 D, and would therefore not be able to see the No. 20 line; his sight would be blurred with these glasses.

The emmetrope uses Ac for near points only and relaxes it when viewing distant objects. The hyperope uses Ac for both distant and near objects, and therefore never obtains a rest for the ciliary muscle; only when he sleeps is a partial relaxation obtained, that is to the extent of the manifest H. The consequence of this constant exercise of the sphincter of the ciliary is, as before stated, to cause it to become stronger than the radiate, and overcome it, so that it is never possible until about the age of 40 to fully correct the H, nor is it desirable; 1 D or more of the defect is up to that age left uncorrected, but to the optician this is of no moment, as the part that is not corrected is not made manifest in the test and need not be considered.

H is made known by pain in the eyes, fatigue, and dimness of the sight for close work, with a desire for rest after they have

MONTREAL OPTICAL COMPANY

1685 Notre Dame St.
MONTREAL

1873=1896

60 Yonge Street
TORONTO

Twenty-three years of practical and scientific optical work



King's Patent Adjustable Handle Glass.

Our Christmas Stock of Marine, Field, Opera, Reading and Magnifying Glasses, Microscopes, Compasses, Barometers, and Lorgnettes is entirely complete, as is our stock of Gold, Silver, Gold Filled, Aluminum, Nickel, Rimless Spectacles and Eye Glasses in all Styles.

Our Prescription Department is the most complete in Canada. None but Skilled Workmen employed.

Visitors are cordially invited to inspect our Stock whenever in town.

Largest Manufacturing and Importing Optical House in Canada.

The next class at the Optical Institute of Canada (Dr. W. E. Hamill, Instructor) commences on January 18th, 1897. For further information, address,

The Principal,
J. S. LEO, 60 Yonge Street, Toronto.

Anchor Guards

PATENT OF THE JULIUS KING OPTICAL CO.

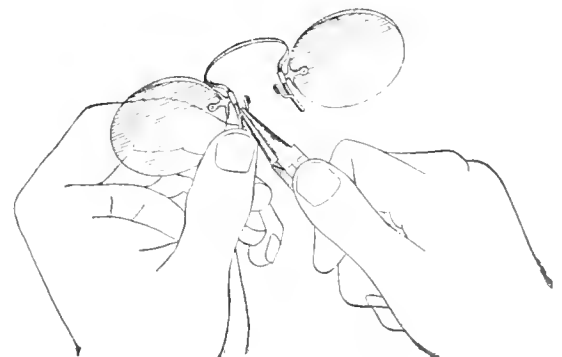
The trade is cautioned against purchasing any infringement of this patent.

Sole Agents
for Canada:

The Montreal Optical Company

MONTREAL.

TORONTO.



CAN'T SHAKE THEM OFF.

Toronto Show Case Com'y

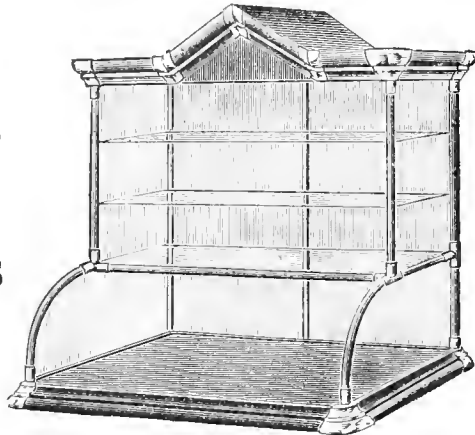
MANUFACTURERS OF

Show Cases . . .

Wall Cases

Druggists' Fittings

Mirrors, etc. . .

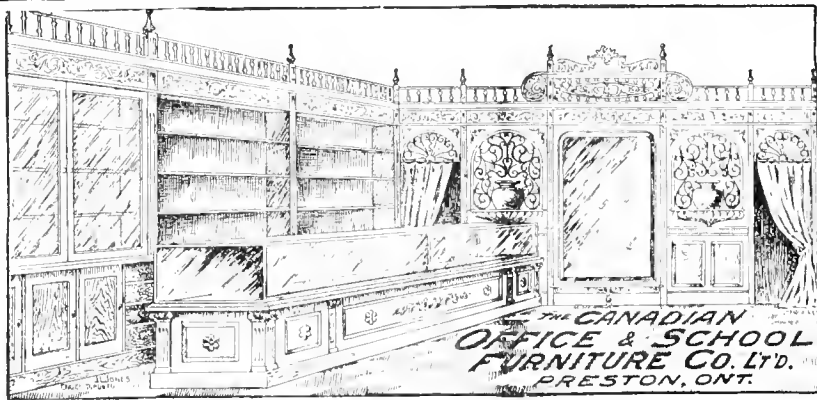


We carry THE
LARGEST STOCK
of any house IN
THE DOMINION,
and guarantee every article
to the satisfaction of the
purchasers.

SEND FOR CATALOGUE

Designs Free of
Charge.

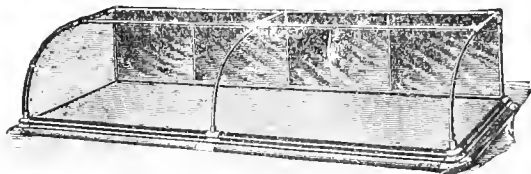
56 ADELAIDE ST. W., and 125-127 BAY ST., TORONTO, ONT.



C. Schack & Co....

Manufacturers of

SHOW CASES
STORE AND OFFICE
FITTINGS



Choice Designs in
CHERRY, OAK, WALNUT and MAHOGANY.



FIRST-CLASS WORKMANSHIP.
LOWEST PRICES.

Special Attention Given to Fitting Drug Stores

Estimates and Designs
Furnished on Application.

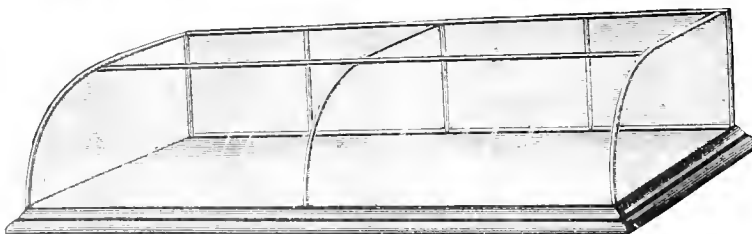
552-554 Yonge Street, - - TORONTO

LONDON SHOW CASE WORKS

SHOW
CASES

Of all kinds

FOR



COUNTERS, WALLS, OR DISPENSARIES.

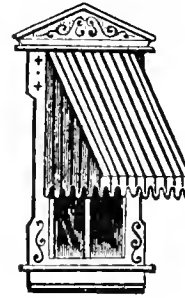
SHOP FIXTURES ♦ COUNTERS ♦ TABLES ♦ SHELVING ♦ MIRRORS, Etc

Send for Catalogue
and Price List

237 King Street,

LONDON, ONT.

Awnings AND Window Shades



FOR
HOUSES, OFFICES,
AND STORES

Made by experienced workmen,
and of the best materials, at prices
as low as is consistent with good
work and materials.

ESTIMATES FURNISHED,

Wm. Bartlett,
16 Adelaide St. West,
TORONTO.

THE UNIVERSAL GRANDALL

NO. 3



Just Out

WRITING IN SIGHT.
INTERCHANGEABLE TYPE.
PERMANENT ALIGNMENT.

THE LATEST IMPROVEMENTS!
WHAT MORE CAN YOU ASK?

Write for catalogue.

THE GRANDALL MACHINE CO.
GROTON, N.Y.



Sold from Halifax to Victoria

BY

HALIFAX { Brown & Webb. Simson Bros. & Co.
Forsyth, Sutcliffe & Co.
ST. JOHN—T. B. Barker & Sons.
YARMOUTH—C. C. Richards & Co.

MONTREAL { Kerry, Watson & Co. Lyman Sons & Co.
Evans Sons & Co. Lyman, Knox & Co.
KINGSTON—Henry Skinner & Co.

TORONTO { Lyman Bros. & Co. Evans Sons & Co.
Northrop & Lyman.
Elliot & Co. T. Milburn & Co.

HAMILTON—Archdale Wilson & Co. J. Winer & Co.
LONDON—London Drug Co. Jas. A. Kennedy & Co.

WINNIPEG—Martin, Bole & Wynoe Co.

NEW WESTMINSTER—D. S. Curtis & Co.

VICTORIA—Langley & Co.

QUEBEC—W. Brunet et Cie.

ST. JOHN—Canadian Drug Co. S. McDiarmid & Co.

PRESCOTT—T. W. Chamberlain & Co.

MONTREAL—Huden, Huber & Co.

been used for some short time. The sight for reading, sewing, etc., might be good if the defect is slight and the above symptoms are felt only after application of the eyes for close work for a certain time, which varies according to the extent of the defect. In such cases the distant V will most likely be found normal and $V = \frac{2}{3}0$ or $\frac{2}{15}0$. If the defect be of a higher degree the symptoms of pain and dimness are more pronounced, and perhaps fine print will not be legible at all and the distant V will be found defective, say, $V = \frac{2}{8}0$ or $\frac{2}{10}0$.

Women are very subject to headaches over the eyes and to the sides just above the cheekbones. The former are caused by strain on the ciliary, the latter by strain on the external recti. If close work be continued without correcting lenses the eyes are very apt to get red, inflamed, and irritated, so that wind, dust, and sunlight cause considerable annoyance. Complaint is often made that the eyes feel more tired at night than early in the day, which is quite natural, as, of course, the ciliary muscle must be more fatigued after being exerted without any rest at all for many hours. Inflammation or redness of the lids, tumors, styes, etc., are common in H, and generally cured by the correction of the defect.

Advertising.

Practical Hints on Advertising.

Copyrighted, 1896, by CHARLES AUSTIN BATES, New York.

When a man cuts off all worthless "schemes" he is really not decreasing his advertising. He is simply declining to spend money for things called advertising by courtesy, or through ignorance. The trouble is that when a man starts to cut off his advertising expense, he cuts off the good things and lets the bad ones stay. If he is spending a thousand dollars in the newspapers, he cuts that down to five hundred dollars, and congratulates himself that he is saving five hundred dollars. At the same time he lets two and five and twenty-five dollars go out into all sorts of schemes, and doesn't count the amounts because they are so small.

He ought to cut off every one of these things, and put all the money into the best papers. When a man cuts down his newspaper space, the chances are ninety-nine in a hundred that he is going to cut off some patronage with it. There are a few men who use more space than is necessary. There are a great many more who do not use half enough space.

I was very much astonished some time ago when a bright New York business man told me that he was going to stop his newspaper advertising. He said that he had just moved into a new store out of the old one; that he had a better location, and a better building, with twice as much

room in which to carry a great deal better stock.

He said he paid twelve thousand dollars rent for the old store, and twenty-four thousand dollars for the new one. He spent nine thousand a year in advertising his old store, and made a success of the business. He intended to cut off this nine thousand dollars of "expense," and with it pay the additional rent for the new store, thereby evening things up very nicely.

I was never more surprised in my life than when I heard of this plan. I told him that, from my standpoint, it looked as if he had increased his capacity for business, increased his stock, increased his rent and all of the other expenses, and that now he must certainly do something to bring in business that would bring in the profit that would pay these additional expenses, and that instead of cutting down his advertising from nine thousand dollars to nothing he ought to cut it up to about fifteen or twenty thousand dollars. I don't think he has done this, but he is advertising now, I believe, just about as much as he did before.

* * * *

The only time when I would cut off my advertising would be when I had more business than I could possibly attend to, and when I had made up my mind that I would not increase my facilities. If I were making all the money that I wanted to make, if my business had reached a proportion which completely satisfied my ambition, I would stop advertising. Even then I would not stop for very long, because, if I did, the business would start on the down grade. You have to advertise to make business and to hold it and to increase it.

* * * *

An ad. ought, above all things, to be natural. It ought to sound as if somebody were talking. There should be no apparent effort to be colloquial. It is better to be stiff than to be colloquial awkwardly. If you can't be easy in your manners in your advertising, don't try. If it isn't natural for you, don't try it.

* * * *

There isn't anything more despicable on this earth than a hypocrite, and hypocritical advertising is the worst possible kind of advertising. If you don't feel good-humored and cordial—if you don't feel like greeting your prospective customers in an off-hand colloquial way, don't try to do it, because, if you do, you will fail. The trick can be learned, of course. A man frequently has to write ads when he doesn't feel just exactly like it, and he can learn to do it so that the result will be just about the same, but he will have to work a great deal harder to accomplish it at some times than at others.

* * * *

The quicker advertisers learn that good advertising doesn't consist merely of neatly turned phrases and an off-hand

style of writing, the sooner advertising will begin to improve.

In an advertisement of the Philadelphia *Item* the first sentence was: "It's not what you say, but the way you say it. I think that is the most utterly absurd proposition that it is possible to make in regard to advertising. It is ridiculous on the face of it. Anyone who is at all inclined to be speculative would be entirely justified in wagering his last dollar on the proposition that 'what you say is more important than how you say it.'"

According to this Philadelphia *Item* ad. the statement that the *Item* has a hundred and ninety thousand circulation every day is of less importance than the wording which is used to convey that information. Following out this line of logical reasoning, one would say that if there was a weekly paper in Philadelphia with a thousand circulation which had the "gift of gab" sufficiently well developed, it might tell the story of its thousand circulation in such an enticing way as to make it appear that that paper was more valuable to advertisers than the *Item* with its hundred and ninety thousand circulation.

I do not mean to say that the expression of an idea is not of great importance. Undoubtedly the story of the Philadelphia *Item's* hundred and ninety thousand circulation could be told in a convincing way, and in a way that would not be convincing. There is no question about that; but an ad. has to have something to start on if it is to be convincing. It has to have some statement which it wishes to convince people is true. The facts come first. It doesn't do any good to advertise something you haven't got. What you say is the first thing to think of—how to say it comes afterward.

* * * *

Advertising isn't cuteness. It is plain, hard, cold, business sense. A little humor or a little pleasantry isn't a bad thing sometimes, but the main thing is to get the facts forcibly before the people most likely to be interested.

Advertising by Retail Druggists.

"It is a sure thing," writes Mr. Theodore Hamilton, "that they do not advertise enough. Most of them do not advertise at all. I don't know why. The drug business is a large one. There is a red and green light showing up from almost every corner. Competition is fierce. The man who advertises for it is sure to get the cream of the trade in his vicinity. The man who doesn't advertise is sure to be bowled out by the man who does. No druggist should wait at his particular corner and be contented with the trade that comes his way. That isn't business. If a man farther down the street advertises properly, people will go past your store to get to his. If you advertise properly, people will go a long way out of

their way to get to you. As in every other business, the advertiser is the man who gets to the front, and stays there.

"The question is, then, how to advertise properly.

"Here's a thought to commence with. The woman of the household attends to the medicine business. Men don't think much of medicine, as a rule, and proceed on the 'I'll be all right to-morrow' principle. Not so with a woman. She believes in medicine, and she insists on the man taking medicine, and either goes for it or sends for it. Naturally, she goes or sends to the druggist she knows. She knows the druggist who has sought and secured her patronage. The way to do this is to advertise the little things every druggist sells and every woman needs. I mean colognes, soaps, powders, brushes, cosmetics, and the like. These are easy things to advertise. There are lots of taking, pulling things to say about such articles, and they can be said in a dainty way that will catch a woman. And when you have a woman customer for such things, you have a mortgage on the steady custom of the whole house for everything in your line.

"Advertise only one thing at a time, though. Don't put sponges, cosmetics, tooth-brushes, colognes, and toilet soaps into a mortar, and pestle out one of those awful price-list advertisements. Write an attractive little paragraph about one thing one time, and take something else the next time, and so on.

"Here's another 'don't.' It may be all right to boom a seasonable patent medicine—particularly if its proprietors pay the bills—but don't print a list of patent medicines with their prices, and call it an advertisement. It isn't. It fails to leave any distinct impression on the mind of the reader. It may not be a total waste of space, but you can use your space to infinitely better advantage.

"One very telling point to make in drug store advertising is the absolute purity of your stock. Another is the extreme care used in compounding prescriptions. Harp on these things. Ring the changes on them up and down the scale. Think of new ways of briefly, but forcibly, telling the public about them. It will pay you. It's good advertising. It covers just the point people want to be assured about, and if you peg away at it you will make a lasting and profitable impression.

"About three inches single column, or two inches double, is the right space. Use a pretty cut or striking headline, or both. If only the latter is used, have it set in big type—big enough to take up fully half the space. Make it say something strong and striking about the article advertised. Advertise only one thing at a time, and use the fewest possible words in telling about its virtues and value.

"Another thing—don't advertise cutting prices. People are not looking for bargain sales nor remnant sales in drugs and medicines. They are not as anxious

about saving three halfpence as they are about getting the real pure thing needed to help them, and they are likely to be suspicious that a 'cut' article is a cut-quality article. Perhaps they have no good ground for such suspicions, but they have 'em just the same. Besides, almost everybody has a natural, deep-down dislike for the 'cutter.' They feel as if, somehow or other, it wasn't playing fair, as if there were something mean about it, as if, by some trickery or other, somebody's bread were being taken out of somebody's mouth. A transient, unreliable trade may be attracted by such methods, but not regular all-the-year-round customers.

"That's why we believe it to be bad business."—*Magazine of Pharmacy.*

Why Should a Pharmacist Subscribe for a Drug Journal?

This question was asked of quite a number of prominent druggists in different parts of the country, and their views are as follows:

(1) I not only take all the prominent pharmaceutical journals, but require my clerks to do the same. It is the only way I can keep up with the times. For everything new and of interest to the pharmacist is to be found in them.

(2) It is a very poor journal that I don't get information worth more than its annual subscription out of a single issue.

(3) Why, everything that is new and novel is advertised in them. I find the advertising as great an advantage as the reading matter.

(4) I find what other druggists are doing.

(5) It is the only reliable way I can be posted as to the new preparations.

(6) I keep them bound, and find them invaluable as a book of daily references.

(7) I never thought journals of pharmacy were of much value to a retailer until last summer. I was visiting a prominent summer resort, and in conversation with a gentleman at the hotel he said: "I have some prescriptions I wish to have prepared. Now, I will go out and see who is the best druggist." I asked him how he would form his conclusion. He said: "I will call at each store (seven in all), and ask them what pharmaceutical journal they take, and the one that has the most, why, I will have him fill my prescriptions."

(8) I not only find valuable information in them, but do not see how my clerks could ever learn the business without them.

(9) The pharmacist who does not take a journal is a back number.

(10) It is in the journals we gain our knowledge, beginning where we left off after leaving the college of pharmacy; the daily progress of pharmacy is here re-

ported, and it is the only way to keep up with the times.

(11) It is the only way I can keep posted as to the market reports. This alone is worth more than the subscription price each issue.—*American Druggist.*

Maxims for Pharmacists.

Prepared by R. S. VITT, Ph.G.

Thoughts are our own, words no longer.

Have a place for everything and have everything in its place.

Use great care and good judgment in selecting your apprentices.

Refinement and culture should not be merely physical. They should be moral and spiritual as well.

"All work and no play makes Jack a dull boy." This applies to a good many drug clerks. Proprietors should know that it is to their business advantage to allow their clerks an airing.

It is a mistake to fancy that a good education is only for the professional man. Why should not all persons want a generous education? But unless education strengthens manhood, it is fruitless. Man is intended to do something for the world.

Am I adapted to this business? This question every young man must answer for himself. Many fail in life because they do not follow the calling to which they are adapted. Life and time are too precious to be wasted in making an experiment first with one line of action and then with another.

Our individual thoughts and acts are imperishable. Every deed we perform has an outward and an inward office. The moment we influence others, we ourselves are influenced. Conduct has its bound and rebound. A good deed is eternal, and no power on earth can blot out the influence of an evil deed.

When you have fully determined your future career be careful, yes, very careful, in choosing your preceptor. If you get with a capable man, one who knows his business and has a reputation for integrity and honor, then you will make rapid headway and the study will be a pleasure to you; but if, unfortunately, your lot should be cast with a man whose only object is to make money, do not at any cost sacrifice your honesty to his caprices, but maintain your right for honorable dealing and you will be rewarded.—*Meyers Bros. Druggist.*

Oxyspartelne Hydrochloride.

Oxysparteine hydrochloride, according to Langlois and Maurange, is of greater value than sparteine itself in combating heart affections during chloroform narcosis. For this purpose 0.03 and 0.04 gm. of oxysparteine hydrochloride and 0.01 gm. of morphine hydrochloride are injected subcutaneously one hour before operation.



FROM HALIFAX TO VANCOUVER

WE ARE ADVERTISING

Teaberry for the Teeth

And nine out of ten druggists are making money handling it. If you are the tenth, think it over. The best tooth powder made—the best known in Canada—the most widely advertised. We think it will pay you to order from your jobber. Try a trial order.

Zopesa Chemical Co., Toronto, Can.

Wine of the Extract of Cod Liver

Sold by all first-class
Chemists and Druggists

CHEVRIER

General Depot:—PARIS,
21, Faubourg Montmartre, 21

This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis, and all diseases of the Chest.

Wine of the Extract of Cod Liver with Creosote

General Depot:—PARIS,
21, Faubourg Montmartre, 21

CHEVRIER

Sold by all first-class
Chemists and Druggists

The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

A Perfect Toilet Gem.



The drug trade of Canada will find this one of the most satisfactory articles on the market. The package is convenient and attractive.

Kindly make sure the ARECA NUT TOOTH PASTE offered you is made in WINNIPEG. The genuine is for sale by

Lyman Bros. & Co., Toronto.
Elliot & Co., Toronto.
Evans & Sons, Montreal.
Lyman, Knox & Co., Montreal.
Lyman, Sons & Co., Montreal.
Kerry, Watson & Co., Montreal.
J. Winer & Co., Hamilton.
J. A. Kennedy & Co., London, and by

THE
MARTIN, BOLE & WYNNE CO.
WINNIPEG.

Gray's

CASTOR-FLUID

For the hair.

DENTAL PEARLINE

An excellent antiseptic tooth wash.

SULPHUR PASTILLES

For burning in diphtheritic cases.

SAPONACEOUS DENTIFRICE

An excellent antiseptic dentifrice.

These Specialties

All of which have been well advertised, more particularly the "Castor-Fluid," may be obtained at all the wholesale houses at Manufacturer's price.

HENRY R. GRAY

ESTABLISHED 1859.

Pharmaceutical Chemist

22 St. Lawrence Main Street

(Cor. of LaGauchetiere)

MONTREAL

BIRD



SEED

Is put up by us in attractive 1 lb. packages. Each package contains a five-cent cake of "Bird Treat" and piece of cuttlefish bone.

It is well advertised, and sells readily at 10 cents, leaving retailers large profit.

Sold in 24 lb. and 35 lb. cases by all wholesalers, or

NICHOLSON & BROCK

Colborne Street - Toronto, Ont.

GILLETT'S LYE
Perfumed
Powdered

FULL STRENGTH

Is the BEST LYE, and easiest to sell.
Handled everywhere by all
good Druggists.

GILLETT'S CHEMICAL WORKS

(Established 1852)

Chicago, Ill. London, Eng. TORONTO, Ont.

BOOKS FOR DRUGGISTS

WRITTEN BY EXPERTS

Manual of Formulæ.

\$1.50 POST FREE.

MORE than 1,000 reliable formulæ connected with every department of modern pharmacy, carefully arranged for ready reference. Indispensable to chemists.

Minor Ailments.

\$1.50 POST FREE.

DIRECTIONS for treatment of the slight affections, accidents, etc., daily brought under the notice of the "counter prescriber." The most modern and effective methods are described, and the most recent of proved remedies pointed out. Produced under the direction of an experienced medical practitioner.

Practical Dispensing.

ILLUSTRATED, 50c. POST FREE.

CONCISE but lucid treatise on the subject specially designed for students. Preparation of mixtures, pills, emulsions, suppositories, also plaster spreading and pill coating, etc., carefully described and illustrated. Detailed directions for preparation of poultices, and of nutritive diet for invalids.

A Synopsis of the British Pharmacopœia Preparations.

By CHAS. F. HEEBNER, PH.G., PH.M.B.

\$1.00 INTERLEAVED.

THE object of this work is to furnish, in a most convenient manner, a method for the study of the official preparations as to their Latin and English titles and synonyms, their composition, methods of preparation, strength, doses, etc., arranged in classes.

This book will be found an invaluable aid to apprentices and students in pharmacy or medicine.

Practical Dentistry.

50c. POST FREE.

THE main features of the surgical and mechanical branches of the Dentist's Art are practically dealt with. Written specially for Chemists by a Dental Surgeon. Pharmacists practising, or desiring to practise, dentistry will find it specially suitable to their requirements.

Diseases of Dogs and Cats.

75c. POST FREE.

THIS work has been specially written for Chemists by an experienced Veterinary Surgeon. It deals practically with the treatment of all ailments by the most modern methods.

Practical Perfumery.

50c. POST FREE.

DIRECTIONS for the preparation of perfumes and toilet articles, with detailed formulæ and useful advice regarding labels, bottles, and putting up. Special information also included relative to new and rare drugs and compounds now used in the manufacture of perfumery.

Manual of Pharmacy and Pharmaceutical Chemistry.

By CHAS. F. HEEBNER, PH.G., PH.M.B.,

Dean of the Ontario College of Pharmacy, and formerly Instructor in Theory and Practice of Pharmacy in the New York College of Pharmacy.

Cloth-Bound, 12mo., 252 pp., \$2.00

THE study of Pharmacy simplified by a systematic and practical arrangement of topics, and the elimination of unnecessary matter.

The first edition has been thoroughly revised and freed from typographical errors; in addition thereto, the third edition contains a treatise on Urinalysis, chemical and microscopical (fully illustrated), and a full index.

Formulary.

HAIR WASH.

Soap, genuine castile . . . 1 ounce
 Soap bark . . . 1 ounce
 Glycerine, alcohol, of each . . . 2 ounces
 Carbonate of potassium . . . 120 grains
 Oil of almonds . . . 80 grains
 Water, a sufficient quantity to make one pound.

Dissolve the soap in sufficient water by means of heat, add the soap bark and the other ingredients, cork, and let stand for several days, and then filter.

TOILET CREAM.

Cold cream
 Oil sweet almonds
 Glycerin
 Boric acid, of each . . . 5 parts
 Solution soda . . . 12 parts
 Mucil, quince seed (1:8) . . . 25 parts
 Water . . . 143 parts
 Oil bitter almonds
 Oil rose . . . Enough to perfume

Heat the cold cream, oil, and soda solution together, stirring constantly until an emulsion is formed; then heat together the glycerin, boric acid, mucilage, and water; mix with the emulsion, stir until cold, and add enough water to make 200 parts; finally, add the perfume.—*South-ern Journal of Pharmacy.*

SHAMPOO POWDERS.

Ammonium carbonate . . . 1 part
 Borax . . . 1 part
 Quillaya bark . . . 2 parts

Powder the ingredients, mix, and add sufficient oil of bay to give a slight perfume, to which may be added any other desirable perfume. Divide into packages of about $\frac{1}{4}$ -ounce in weight, each of which suffices for one shampoo. Directions to go with the powders: "Put the powder in a mug provided with a cover; pour on about a cupful of boiling water, cover, and let stand for a few moments. When cool enough, use as ordinary shampoo liquor."—*National Druggist.*

BATH PASTE.

Bicarbonate of soda . . . 3 ounces
 Tartaric acid . . . 2 $\frac{1}{4}$ ounces
 Powdered starch . . . 4 $\frac{1}{2}$ ounces
 Oil of almonds . . . 2 ounces
 Otto of rose . . . 2 drops
 Oil of lavender . . . 4 drops

Gently dry the soda and acid. Mix the soda with the starch, then add the acid. Mix the oils together, add to the powders, make into a stiff paste, and bottle. A large teaspoonful should be added to each bath.—*Exchange.*

GLYCERIN CREAM.

Corn starch, in fine powder . . . 6 drachms
 Boric acid . . . 2 drachms
 Carbolic acid . . . 30 drops
 Glycerin . . . 6 fluidounces
 Water . . . 14 fluidounces
 Perfume, to suit.

Boil the starch with the water until a perfect paste is obtained. Dissolve the boric and carbolic acids in the glycerin, and incorporate with the paste. Then add the perfume.

OILY ANILIN PASTES.

RED.	Parts.
Oil soluble Bordeaux red anilin . . .	1.5
" scarlet anilin . . .	1.5
Crude oleic acid . . .	5
Castor oil . . .	95

Rub the anilin colors very fine with oleic acid, then add the castor oil, and warm the whole gently, stirring all the time, until it reaches a temperature of 40° C.

The following are prepared in the same way:

BLUE.	Parts.
Oil-soluble anilin blue . . .	3
Crude oleic acid . . .	6
Castor oil . . .	94

VIOLET.	Parts.
Oil-soluble anilin violet . . .	3
Crude oleic acid . . .	6
Castor oil . . .	95

BLUE-BLACK.	Parts.
Oil-soluble anilin black . . .	5
Crude oleic acid . . .	6
Castor oil . . .	94

GREEN.	Parts.
Oil-soluble anilin blue . . .	2.5
" citron yellow . . .	1.5
Crude oleic acid . . .	5
Castor oil . . .	95

—*Meyers Bros. Druggist.*

CLEANSING PREPARATION.

An imitation of the cleansing preparation sold under the name of "Seitenmilch" (soap milk) can be made by emulsifying 500 grams each of benzol and petroleum ether with five grams of opodeldoc soap, and *quant. suff.* of water. The soap is dissolved in 50 to 60 grams of lukewarm water and the ethereal mixture added by degrees, and shaken up until the emulsion forms. If this does not occur when about half the ether has been added, from 50 to 100 grams of water, at 60-80°C., are run into the flask, and the agitation repeated, a treatment that will greatly assist the operation. The finished preparation effectually removes grease stains.—*Pharm. Post.*

FASTENING SIGN LETTERS TO WINDOWS.

The following formula is said to produce a cement which is not affected by moisture, even if the glass to which the letters have been cemented should be submerged in water for several days:

	Parts.
India rubber . . .	1
Mastic . . .	3
Chloroform . . .	50

Let stand in a well-corked bottle for several days, in a cool place, until completely dissolved. As it becomes thick very soon when exposed to the air it must be applied very rapidly.

WHITE BRASS PASTE OR METAL POLISH.

Yellow vaseline . . .	28 lbs.
Tripol powder . . .	20 "
Powder whiting (well dried) . . .	2 "

Another mixing for small paint.

Paraffin wax . . .	2 lb.
Petroleum . . .	1 gallon
Mineral oil . . .	4 quart
Levigated flint . . .	12 lb.
Oleic acid . . .	1 pint

—*Oils, Colors, and Drydities.*

PREPARATION OF CARAMEL.

Dissolve seven lbs. of crushed sugar in one pint of water; boil it in a five-gallon copper kettle, stirring occasionally until it gets brown; then reduce the fire and let the sugar burn "until the smoke makes the eyes water." When a few drops, let fall into a tumbler of cold water, sink to the bottom and harden sufficiently to crack, it is done. Then pour on it, by degrees, about two quarts of warm water, stirring all the time. When well mixed, filter it hot through a coarse flannel filter. Some use limewater to dissolve the burnt sugar. Care must be taken not to overburn it, as a greater quantity is thereby rendered insoluble. The heat should not exceed 430 degrees F., nor be under 400 degrees F.

Treatment of Chilblains.

The following formula is recommended by C. Boeck as being efficacious in cases of chilblains:

Ichthyol,
 Resorcin,
 Tannin, of each, 15 grains;
 Water, 75 grains.

To be rubbed on the affected parts every night.

In a few minutes it forms a varnish on the skin, and under its influence not only do the chilblains disappear, but also the diffuse edematous swellings of the hands and fingers.

The drawbacks to this preparation is that it blackens the skin during treatment and for eight or fifteen days afterwards. In the case of people whose occupations forbid them soiling their hands, resorcin may still be employed in the following manner:

Resorcin, 30 grains,
 Mucilage of gum arabic,
 Water, of each, 75 grains;
 Powder of talc, 15 grains
 To be rubbed on at night.

The following is recommended for the relief of stings of insects:

Solution of ammonia, 10 parts;
 Collodion, 5 parts;
 Salicylic acid, 1 part

—*The Lancet.*

CHILBLAIN POMADE.

	Parts.
Menthol . . .	1
Salol . . .	2
Olive oil . . .	2
Lanolin . . .	60
Mix and make ointment.	

Pain is subdued at once on application. The skin becomes soft under regular use of the pomade, and loses its tendency to crack and ulcerate.—*Petit Moniteur de la Pharmacie.*

Photographic Notes

EIKONOGEN DEVELOPER.—The following developer is recommended by Dr. Stiefel as giving especially fine negatives, showing softer detail than either pyro or hydrochinon:

(1) Sulphite of soda.....30 parts
Eikonogen.....16 parts
Citric acid.....3 parts
Bromide potassium.....2 parts
Water.....480 parts

(2) Sulphite of soda.....100 parts
Carbonate of potassium.....120 parts
Water.....480 parts

For use take—

(1).....4 parts
(2).....1 part
Water.....3 parts

Developments should be continued until the requisite density has been reached.

A ONE-SOLUTION INTENSIFIER.—Prepare a saturated solution of bichromate of mercury in water, and pour of this a sufficient quantity gradually into a solution of

Iodide of potassium.....1 1/4 ozs.
Water.....6 ozs.

until the point is reached when the forming red precipitate will no longer dissolve by shaking; but be careful not to add more mercury than just enough to make the solution very slightly turbid. Now add

Hypo-sulphite of soda.....1 oz.

Dissolve, and add water to make twenty ounces of solution. For use this should be diluted with about three parts of water. If the plate has not been thoroughly fixed the intensifying solution will produce yellow stains. Be careful not to overdo the intensifying. Should it have gone too far the negative can be reduced by placing it in the fixing bath for a short time.—*American Journal of Photography.*

GELATINE, or bromide prints, may be hardened by placing in a bath of alum, chlo aluminium, tannin, or formalin.

Lantern Slide Making.

By R. H. MITCHELL

After impressing upon his audience the advantage to the pharmacist from the adoption of the photographic trade as a profitable and suitable adjunct to his regular business, the lecturer remarked that it stood to sense that anyone embarking upon such a venture would be but very imperfectly equipped if he had no practical knowledge of the art of photography. He would not go into the details of photographic manipulation generally, that part of the subject having already been treated by a member of the society in a former paper, but would confine the at-

tention of his audience to that portion of practical photography which formed the chief work of the amateur during the winter months—he alluded to the preparation of slides for the optic lantern.

The value of good lantern slides, as a means to the proper illustration of a lecture on any subject, could scarcely be overrated. A lecturer who attempted to keep the attention of his hearers fixed on some scientific subject treated in a popular manner without lantern illustrations, he be ever so good, was just tolerated, whilst if only a moderate lecturer, and unassisted by lantern slides, he was looked upon with contempt.

Lantern plates from which the slides are prepared may be divided into three classes—special, warm, and printing out, each of which has its special advantages over the others. Some Imperial "special" plates were then shown, and it was explained that these could be used for contact printing from a negative in the ordinary printing frame, or for a reduction from a large negative in the reducing camera giving cold tones principally. Ilford "Alpha" plates, yielding warm tones, and Paget printing-out plates, for printing in sunlight, which gave a variety of tones, were also shown and remarked upon. A slide was then printed from a 1/4-plate negative by gaslight, the exposure being judged by the density of the negative, and the result aimed at—a short exposure and quick developer giving black, cold tones, and a longer exposure and slow development warm, brown tones. Black tones averaged an exposure of 16 to 20 seconds, at a foot and a half from an ordinary No. 3 fish tail burner. The developers employed are numerous, amidol, metol, eikonogen, pyrogallol, ferrous oxalate, and hydroquinone being the favorites. Pyrogallol is scarcely suitable for lantern slides, as it stains the film. Amidol and metol are excellent, especially for slides from other photographs or engravings, though metol is somewhat rapid and require watching. The best all-round developer, and the one most generally used, is hydroquinone, and the formula recommended was that given to the lecturer by a member of the Liverpool Amateur Photographic Association, which is as follows:

Solution A.

Hydroquinone.....1/2 ounce.
Sodium sulphite.....1 "
Citric acid.....30 grains.
Potassium bromide.....40 "
Water.....10 ounces.

Solution B

Caustic soda.....80 grains.
Water.....10 ounces.

Use one part of A, one of B, and two of water. A negative of a marine subject was then developed, and as plenty of detail had to be shown in the rigging of the ship, etc., an extra amount of solution A was used.

Reduction by the camera was then treated, and an easy way of getting the

same results without the use of a special camera was explained. A large piece of cardboard with a square piece cut out of the centre, and this hole covered with tissue paper, is hung against the window, the printing frame with the negative wedged in it is hung over this tissue paper-covered hole, so that the light passes through the negative. The camera is now set up, and the negative focused on the screen in the space marked out for the lantern plate. The plate is then introduced, and exposed for at least six to ten minutes to ordinary daylight, not direct sunlight, this length of time being required owing to the quantity of light passing through the negative being lost by diffusion about the room.

Plates giving warm tones, such as Ilford "Alpha" plates, are used for contact printing, as they require so much time if used for reduction, and after development are either fixed straight away, when they give a sepia tone, or may be treated to one of the combination fixing and toning baths, a great variety of tints resulting. The latitude allowed by these plates makes them very useful where any "dodging" of the printing process is required, such as blocking out the sky or emphasizing some particular part of the picture. The printing-out plate is used for contact sunlight printing, just as ordinary P.O. paper, but it is as well to expose the negative to diffused daylight, and to be careful, when removing the frame for the purpose of watching the printing, to return it to the same spot in the window as before, or a blurred slide will be the consequence. On removal from the frame the plate is washed, toned with the usual gold bath used for paper, fixed with sodium hypo-sulphite, and finally well washed. The toning can, with these plates, be managed so as to arrive at splendid results. If a variety of color be wished for, a fine sepia to russet brown tint can be given to the slides by placing them, after fixing and well washing, in a solution of uranium ferricyanide:

Uranium nitrate.....15 grains,
Potassium ferricyanide.....15 grains,
Water.....4 ounces,

carefully noting the following points: do not try this on an imperfectly-washed plate, do not overdo the tint, and, lastly, carefully choose your subject, as it does not suit all alike.

Clouds can be put into lantern slides by printing them separately on another plate, and using this as a cover glass. The lecturer, in conclusion, said he would not go into the finishing off of the slides such as marking and binding, but would leave that to the individual taste of his hearers.

—*Pharmaceutical Journal.*

The annual budget for the Assistance Publique amounts in round numbers to the large sum of \$8,000,000. Of this amount the surgical and medical personnel receives \$200,000.



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29	Large " Blue, 6 x 8 1/2, 50	43	Powder " " 2 1/2 x 3 1/2, 25
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SEVEN GREAT SERIALS

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A New Life of Grant by Hamlin Garland. The first authoritative and adequate life of Grant ever published. Lavishly illustrated. (Begins in December.)

Rudyard Kipling's first American serial, "Captains Courageous." (Begun in November.)

Robert Louis Stevenson's "St. Ives." The only novel of Stevenson's still unpublished. (Begins in May.)

Chas. A. Dana. "Recollections of Wartime." Mr. Dana was for three of the most critical years of the Civil War practically a member of Lincoln's Cabinet, and is probably better fitted than any other man living to give an authoritative history of this period from his recollections and correspondence.

Portraits of Great Americans. Many of them unpublished. In connection with this series of portraits it is intended to publish special biographical studies under the general title of **Makers of the Union** from Washington to Lincoln.

Pictures of Palestine. Specially taken under the editor's direction.

Stories of Adventure. A serial by **Conan Doyle**, in which he will use his extraordinary talent for mystery and ingenuity which have, in the "Sherlock Holmes" stories, given him a place beside Poe and Gaboriau.

TEN FAMOUS WRITERS

Ian Maclaren. All the fiction that he will write during the coming year, with the exception of two contributions to another publication which were engaged from him long ago, will appear in **McCLURE'S MAGAZINE**.

Joel Chandler Harris. A series of new animal stories in the same field as the "Bret Rabbit" and the "Little Mr. Thimblefinger" stories.

Rudyard Kipling. Besides "Captains Courageous," Kipling will contribute to **McCLURE'S** all of the short stories he will write during the coming year.

Octave Thanet is preparing for the **MAGAZINE** a series of short stories in which the same characters will appear, although each will be complete in itself.

Anthony Hope

Bret Harte

Robert Barr

Frank R. Stockton

Stanley Weyman

Clark Russell

will all have stories in **McCLURE'S** for the coming year.

These are only a small fraction of the great and important features of **McCLURE'S MAGAZINE** for 1897, the subscription price of which is only

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"We believe cutting of prices detrimental to our interests."

Druggists

Who will sell Manley's Celery Nerve Compound and Indian Woman's Balm at the regular prices are authorized to guarantee the preparation to give satisfaction or refund the money and reclaim same by addressing

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is like a poor horse—it costs more than its worth to keep it.

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P. R. WRIGHT, Proprietor.

Robert H. Roe.

There are many of the trade in western Ontario who will remember Robert H. Roe, and will be grieved to learn of his death at Yokohama. Mr. Roe was born at Achavoe, Queen's Co., Ireland, September 10th, 1851. In 1864 he came with his parents to London, Ont., where, in due time, he served his apprenticeship with the veteran druggist of that city, Mr. B. A. Mitchell, where he was known to the writer. He afterwards occupied various positions in Canada and the United States in the retail trade, and as representative for Parke, Davis & Co., of Detroit, and finally was appointed as the Australian representative of Frederick Stearns & Co., of Detroit. He also established the business of this firm in India and South Africa. "Bob," as he was familiarly known to his associates, was a general favorite, and proved an able representative for his house. He was in India when his fatal illness overtook him, and decided to return home, but only got as far as Yokohama, where he died.

Ontario Society of Retail Druggists.

The following circular has been sent to the wholesale druggists and manufacturers:

Toronto, Nov. 24, 1896.

GENTLEMEN, — Nearly a year has elapsed since the organization of our society, and a mutual understanding arrived at between the society, the wholesale jobbers, and the manufacturers, with the object of securing uniformity of prices for patent medicines and a general betterment of trade.

The officers of our society have labored hard to attain the object aimed at, and in country places we have been able to make our influence felt, both in preventing the spread of the evil of cutting of prices, and also in correcting the abuse where existing; but so far as the large centres are concerned, where persistent cutting prevails, we have been powerless to accomplish any permanent good.

The cause of such failure is not far to seek, and lies with the manufacturer and wholesale jobber. By the latter and a few of the former a half-hearted effort has been made to assist in the movement, but by the majority of the former no effort whatever has been put forth.

True, all our wholesale jobbers have refused to sell to the cutters directly, but, at the same time, indirectly goods are passing freely from their warehouses to the shelves of the persistent cutters. The medium is not always the same: sometimes the wholesale grocers, and at other times some fake jobbing firm, without standing, either financial or moral, in the commercial world.

This condition of things cannot go on longer. "We have come to the parting of the ways." Either this must be discontinued or the executive of the society

feel that they would be justified in advising the members that the time has arrived to sever trade connections with houses who put forth no effort to observe the spirit of our mutual agreement. There is no use mincing matters or beating about the bush longer. Supplying patent medicines to wholesale grocers must be discontinued, or cutting cannot be stopped. The most strenuous efforts of our society have time and again been nullified by carelessness on the part of the wholesale jobbers. For instance, ordinary precaution would have prevented Messrs. Danford, Roche & Co., Newmarket, from procuring supplies. Again, later, a single inquiry addressed to the officers of our society would have prevented a consignment of Ayer's goods falling into the hands of Toronto cutters. These firms continue to procure their supplies without let or hindrance from Toronto, Hamilton, and Montreal wholesale jobbers through wholesale grocers. In such cases a minimum of care would prevent a maximum of trouble.

When we approach the manufacturers asking for more protection to their goods, we are met with the statement that there is no use refusing goods to outsiders, for if they do so the wholesale jobber will supply them. The evidence in our possession substantiates this statement. We have a list of preparations which have been sold to wholesale jobbers only, and yet they are found in large quantities on cutters' shelves. The question is, How did they get there?

Something must be done to end this unsatisfactory state of affairs or the officers of our society will cease work, and the disaster which is sure to follow will overthrow the wholesale jobbers just as surely as the retail branch of the trade.

We write plainly, as we wish all interested to understand the situation, and to use their personal influence to devise a remedy.

Yours respectfully,

The Executive of the O.S.R.D.

J. T. Pepper, Sec. and Treas.

G. E. Gibbard, President.

P.S.—Since the above was written we have evidence which seems conclusive that a Montreal jobbing house is supplying goods direct to Messrs. Woodward & Co., the only cutters west of Ontario.

J. T. Pepper, Sec. and Treas.

G. E. Gibbard, President.

There is no doubt that the prices of otto of rose will be very much lower this year in spite of all efforts to keep up values. The price fixed some weeks ago in Bulgaria is about 30 per cent. below last year's quotation. The freezing-point test is being much more largely used this year as a basis of sale, and if this is adhered to, the greater proportion of the adulterated material will be detected.—*Perfumer and Saponifier.*

Amongst the Wholesalers.

Archdale Wilson & Co.'s advertisement in this issue strikes the right note. What the drug trade now wants is reliable preparations which may be confidently recommended, offering old-time drug profits.

Children Free.

By sending your name and address (write plainly) to Adams & Sons Co., 11 and 13 Jarvis street, Toronto, Ont., you will receive one of their beautiful paper dolls, with movable heads and bodies, for the children, free. 280 2

"The Best and That Only."

This is the claim that Frederick Stearns & Co. make for their choice lines of perfumes. Their special odors are very taking, and have proved excellent sellers. The products of this firm, perfumes as well as pharmaceuticals, are too well and favorably known to the trade to require any further encomium from us.

A Nice Article. Attractively Put Up.

Yes, there's the secret, especially with toilet articles. They must be agreeable, the best of the kind, and put up in such a way as to attract customers. Such an article we have in the Talcum Toilet Powder, prepared by Elliot & Co., wholesale druggists, Toronto. It is equal, if not superior, to any we have seen, and must prove a satisfactory article to handle.

Mainer's Cough Drops.

These cough drops, so well known to the drug trade of Toronto, are now introduced through our columns to the trade throughout Canada by the manufacturer, A. Mainer, wholesale confectioner, Toronto, who also makes a very choice line of druggists' confectionery similar in style and appearance to the English goods, but especially adapted for this climate. His goods are excellent, and wherever introduced have commanded repeat orders. Read his advertisement.

Sundries at Reduced Prices.

Allan & Co., Toronto, are retiring from the drug sundry business, and will in future only carry on the manufacture of their patent medicines. They are offering trusses, rubber goods, sponges, perfumes, and sundries at greatly reduced prices. Druggists will save money by sending their orders to this firm, as the goods are right and the prices away down. On another page you will find a few of their lines of trusses with prices. Their lines of perfumes are done up in quarter dozen fancy boxes, and are good sellers.

A Handsome Cabinet.

Our attention has been called to a useful and ornamental piece of shop furniture. We refer to the "Crescent Tooth, Chamois, and Sponge Cabinet," something entirely new and well adapted for the display of these lines of goods. The one shown us is made of oak, 44 inches high, 32½ inches long, and 22 inches wide, fitted with casters, has two hinged doors at the back, and the shelves of the lower portion are so arranged that the sponges will not fall out when the doors are opened. The upper section, which is intended for tooth brushes, etc., has door to raise, with lock and key, and is partitioned for the various kinds of brushes. Being glazed with double strength French glass all round, it makes a durable as well as a handsome show case and a splendid "good seller." The Lyman Brothers & Co., Toronto, are agents for them.

A Liberal Offer.

One of the most liberal prize offers ever made to the retail drug trade of the United States and Canada is that made by The Emerson Drug Company, Baltimore, Md., which will be found in this publication. This company, from the beginning of their very successful career in the sale of their celebrated preparation, Bromo-Seltzer, took the wise and remunerative course of making the retail druggists take a substantial interest in the sale of this great remedy by establishing a co-operative system of sharing profits, under which they distributed to the retailers in 1891-92 \$20,000 in stock of their company, and, in 1895-96, \$10,000 cash, which was divided into 627 prizes. For the year 1897, as will be seen by their notice published herein, they offer to this trade \$20,000 in gold, which is divided into 1,387 prizes, thus largely increasing the opportunities of 1895-96, as the number of prizes is about doubled. The greatest quantity of Bromo-Seltzer sold takes the highest prize, and the other prizes are graded down as set forth in their notice.

A good name is worth money to any wide-awake man, says the *Money Maker*. He can transact business upon it, buy and sell upon it. A man with a good rating for his word and honesty by Dun or Bradstreet can walk into the best establishment of Chicago or New York, be received into an office with velvet carpet on its floor, be bowed out with courtesy and asked to call again. A man who breaks his word and dishonors his credit for the sake of keeping a few dollars in his pocket may think he is playing a sharp trick, but men of sound business sense know how foolish and short-sighted he is.

Ovaraden is a preparation made from the ovaries, dose 3 to 6 grains daily.

Magazines.

Rosa Bonheur leads the life of a recluse in her chateau in the depths of the Forest of Fontainebleau, near Paris. She secludes herself from all, and it was with the greatest difficulty that the editors of *The Ladies Home Journal* succeeded in getting a proposition before her that she should write her autobiography for that magazine. After nearly a year's effort they were successful, and once started on her work the great painter found so much interest in it that she made over a dozen special studies and pictures of animals to accompany the text. The autobiographical article, with the valuable unpublished drawings, will appear in the Christmas *Journal*, together with portraits of Rosa Bonheur as she works in her studio and home.

The New Editor.

Mr. Geo. E. Gibbard, president of the Ontario Society of Retail Druggists, has assumed control of the *Canadian Pharmaceutical Journal*, which for so many years prospered under the editorial pen of E. B. Shuttleworth. We congratulate Mr. Gibbard upon his assumption of the mantle which has fallen to him, and our best wish is that he may fill it with equal

WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, Etc., will be inserted once free of charge. Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail reply.

SITUATIONS WANTED.

DRUGGIST'S ASSISTANT. SITUATION WANTED. Ed. Experience—three years in country and city drug stores. Testimonials good. N. Ball, Hanover, Ont.

SITUATION WANTED AS IMPROVER. TWO years' experience. A knowledge of dispensing and stationery. Address Box 287, Gorrie, Ont.

BUSINESS WANTED.

WANTED TO PURCHASE A DRUG STORE. IN town or city in Ontario. Must do a good business. State price, average sales, etc. Address, J. F. T. (correspondence private), 94 Ferguson Ave. N. Hamilton, Ont.

FOR SALE.

DRUG AND STATIONERY BUSINESS FOR SALE. Stock moderate, doing a good trade. Address, "A H," care CANADIAN DRUGGIST.

FOR SALE. A BRANCH DRUG STOCK. IN A modern fitted store, in a town of 1,200. Stock about \$500, well assorted. A splendid chance for a young man or doctor. Apply to Box 62, Vankleek Hill, Ont.

WELL ESTABLISHED DRUG BUSINESS IN city in Manitoba. A splendid opportunity for young man with small capital. If buyer understands German, trade can be greatly increased. Good reasons given for selling. Address Box 59, CANADIAN DRUGGIST.

FOR SALE. OLD ESTABLISHED DRUG STORE. Stock \$2,000. A splendid chance for a young man. Reasons for selling—proprietor engaged in manufacturing. For particulars write to "Druggist," 84½ Lafayette Ave., Detroit, Mich.

FOR SALE. SMALL, WELL ASSORTED DRUG Stock in Toronto—first-class condition, will invoice about \$1,000. This is a splendid opportunity for any one starting business, as it will be sold at a liberal discount. Box 22, CANADIAN DRUGGIST.

RARE CHANCE FOR SALE—ONE OF THE finest drug stores in British Columbia. Stock clean and well selected. No side lines. Most prominent corner in business centre. As outside interests require immediate attention will sell low, if sold soon to cash purchaser. For particulars address "Gold Fields," care CANADIAN DRUGGIST. (2X)

credit to his journal, himself, and the drug trade of Canada, as did his talented predecessor.

McClure's Magazine.

McClure's Magazine for December will contain an account of Nansen's hard adventures in getting 195 miles nearer the North Pole than any other man. It will be written by Cyrus C. Adams, of the New York *Sun*, one of the best geographical authorities in the country; and it will be illustrated with portraits of Nansen and his associates, views of his ship within and without, and other pictures.

A Valuable Diary.

The *British and Colonial Druggist's* Diary for 1897 is just to hand. Besides the usual diary pages, which are interleaved throughout with blotting, the diary contains matter of special interest to drug-

Send your name for a Souvenir
of the Works of Eugene Field,

FIELD & FLOWERS

The Eugene Field Monument Souvenir

The most beautiful Art Production of the century. "A small bunch of the most fragrant of blossoms gathered from the broad acres of Eugene Field's Farm of Love." Contains a selection of the most beautiful of the poems of Eugene Field. Handsomely illustrated by thirty-five of the world's greatest artists as their contribution to the Monument Fund. But for the noble contributions of the great artists this book could not have been manufactured for \$7.00. For sale at book stores, or sent prepaid on receipt of \$1.10. The love offering to the Child's Poet Laureate, published by the Committee to create a fund to build the Monument and to care for the family of the beloved poet.

Eugene Field Monument Souvenir Fund,
180 Monroe Street, Chicago, Ill.

To the Trade:

We are wholesale agents
for

MOXON'S Celebrated Liniment

We have a large quantity in
stock. No extra duty to pay.
Prices same as the American
prices.

Write us for Prices.

JAMES A. KENNEDY & CO.,

WHOLESALE DRUGGISTS

342 Richmond St., - LONDON.

SEELY

The American Perfumer

We desire to notify the Trade that our representatives are now showing the Finest line of Holiday Perfumes and Novelties yet shown by them.

Every Druggist in the Dominion will consult his interests by making an effort to see the line.

If our Representatives do not call regularly on you, please notify us and we will arrange to see you.

WE SELL TO THE DRUG TRADE ONLY

SEELY MANUFACTURING COMPANY

— ESTABLISHED IN 1862 —

Detroit, Mich.

Windsor, Ont.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to December 10th, 1896.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal.....	\$4 37	\$4 65	Powdered, lb.....	\$ 30	35	Myrrh, lb.....	\$ 45	\$ 48
Methyl.....	1 90	2 00	CARBON, Bisulphide, lb.....	17	18	Powdered, lb.....	55	60
ALLSPICE, lb.....	13	15	CARMINE, No. 40, oz.....	40	50	Opium, lb.....	4 25	4 50
Powdered, lb.....	15	17	CASTOR, Fibre, lb.....	20 00	20 00	Powdered, lb.....	5 25	5 50
ALON, oz.....	40	45	CHALK, French, powdered, lb.....	10	12	Scammony, pure Resin, lb.....	12 50	13 00
ANODYNE, Hoffman's bot., lbs.....	50	55	Precip., see Calcium, lb.....	10	12	Shellac, lb.....	40	45
ARROWROOT, Bermuda, lb.....	50	55	Prepared, lb.....	5	6	Bleached, lb.....	45	50
St. Vincent, lb.....	15	18	CHARCOAL, Animal, powd., lb.....	4	5	Spruce, true, lb.....	30	35
BAL AM, Fir, lb.....	40	45	Willow, powdered, lb.....	20	25	Tragacanth, flake, 1st, lb.....	85	90
Copaiba, lb.....	70	80	CLOVE, lb.....	16	17	Powdered, lb.....	1 10	1 25
Pera, lb.....	3 75	4 00	Powdered, lb.....	17	18	Sorts, lb.....	55	70
Tolu, can or less, lb.....	95	1 00	COCHINEAL, S.G., lb.....	40	45	Thus, lb.....	8	10
BARK, Barberry, lb.....	22	25	COLLOIDION, lb.....	75	80	HERR, Althea, lb.....	27	35
Bayberry, lb.....	15	18	Cantharidal, lb.....	2 50	2 75	Bitterwort, lb.....	30	40
Buckthorn, lb.....	15	17	CONFECTION, Senna, lb.....	40	45	Birdock, lb.....	10	18
Canella, lb.....	15	17	CREOSOTE, Wood, lb.....	2 00	2 50	Boneset, ozs., lb.....	15	17
Cascara, Sagrada.....	25	30	CUTLEFISH BONE, lb.....	25	30	Catnip, ozs., lb.....	17	20
Cascarilla, select, lb.....	18	20	DEXTRENE, lb.....	10	12	Chiretta, lb.....	25	30
Cassia, in mats, lb.....	18	20	DOVER'S POWDER, lb.....	1 50	1 60	Coltsfoot, lb.....	20	38
Cinchona, red, lb.....	60	65	ERGOT, Spanish, lb.....	75	80	Feverfew, ozs., lb.....	53	55
Powdered, lb.....	65	70	Powdered, lb.....	90	1 00	Grindelia robusta, lb.....	45	50
Yellow, lb.....	35	40	Ergotin, Keith's, oz.....	2 00	2 10	Horehound, ozs., lb.....	18	20
Pale, lb.....	40	45	EXTRACT LOGWOOD, bulk, lb.....	13	14	Jaborandi, lb.....	45	50
Elm, selected, lb.....	18	20	Pounds, lb.....	14	17	Lemon Balm, lb.....	38	40
Ground, lb.....	17	20	FLOWERS, Amica, lb.....	15	20	Liverwort, German, lb.....	38	40
Powdered, lb.....	20	28	Calendula, lb.....	55	60	Lobelia, ozs., lb.....	15	20
Hemlock, crushed, lb.....	18	20	Camomile, Roman, lb.....	25	30	Motherwort, ozs., lb.....	20	22
Oak, white, crushed lb.....	15	17	German, lb.....	40	45	Mullein, German, lb.....	17	20
Orange peel, bitter, lb.....	15	16	Elder, lb.....	20	22	Pennyroyal, ozs., lb.....	18	20
Prickly ash, lb.....	35	40	Lavender, lb.....	12	15	Peppermint, ozs., lb.....	21	22
Sassafras, lb.....	15	16	Rose, red, French, lb.....	1 00	2 00	Rue, ozs., lb.....	30	35
Soap (quillaya), lb.....	13	15	Rosemary, lb.....	25	30	Sage, ozs., lb.....	18	20
Wild cherry, lb.....	13	15	Saffron, American, lb.....	65	70	Spearmint, lb.....	21	25
BLANS, Calabar, lb.....	45	50	Spanish, Vala, oz.....	1 00	1 25	Thyme, ozs., lb.....	18	20
Tonka, lb.....	1 50	2 75	GELATINE, Cooper's, lb.....	75	80	Tansy, ozs., lb.....	15	18
Vanilla, lb.....	8 50	9 00	French, white, lb.....	35	40	Wormwood, ozs., lb.....	20	22
BEKKIES, Cubeb, sifted, lb.....	30	35	GLYCERINE, lb.....	23	25	Yerba Santa, lb.....	38	44
powdered, lb.....	35	40	GUARANA.....	1 75	2 00	HONEY, lb.....	13	15
Juniper, lb.....	7	10	Powdered, lb.....	2 00	2 25	Hors, fresh, lb.....	20	25
Ground, lb.....	12	14	GUM ALGEE, Cape, lb.....	18	20	INDIGO, Madras, lb.....	75	80
Prickly ash, lb.....	40	45	Barbadoes, lb.....	30	50	INSECT POWDER, lb.....	35	38
BUDS, Balm of Gilead, lb.....	55	60	Socotrine, lb.....	65	70	ISINGLASS, Brazil, lb.....	2 00	2 10
Cassia, lb.....	25	30	Asafetida, lb.....	40	45	Russian, true, lb.....	6 00	6 50
BUTTER, Cacao, lb.....	75	80	Arabic, 1st, lb.....	70	75	LEAF, Aconite, lb.....	25	30
CAMPHOR, lb.....	65	75	Powdered, lb.....	80	95	Bay, lb.....	18	20
CANTHARIDES, Russian, lb.....	1 40	1 50	Sifted sorts, lb.....	45	50	Belladonna, lb.....	25	30
Powdered, lb.....	1 50	1 60	Sorts, lb.....	30	35	Buchu, long, lb.....	50	55
CAPSCUM, lb.....	25	30	Benzoin, lb.....	50	1 00	Short, lb.....	25	27
			Catechu, Black, lb.....	9	20	Coca, lb.....	35	40
			Gamboge, powdered, lb.....	1 20	1 25	Digitalis, lb.....	15	20
			Guaiac, lb.....	50	1 00	Eucalyptus, lb.....	18	20
			Powdered, lb.....	90	95	Hyoxyamus.....	20	25
			Kino, true, lb.....	2 00	2 25	Matico, lb.....	70	75

Senna, Alexandria, lb.	\$ 25	\$ 30	Queen of the Meadow, lb.	\$ 18	\$ 20	Valerianate, oz.	\$ 55	\$ 60
Tinnevely, lb.	15	25	Rhatany, lb.	20	30	AMYL, Nitrite, oz.	16	18
Stramonium, lb.	20	25	Rhubarb, lb.	75	2 50	ANTINERVIN, oz.	85	00
Uva Ursi, lb.	15	18	Sarsaparilla, Hond, lb.	40	45	ANTI-KAMNIA,	1 30	1 35
LEECHES, Swedish, doz.	1 00	1 10	Cut, lb.	50	55	ANTI-PYRIN, oz.	1 10	1 20
LICORICE, Solazzi,	45	50	Senega, lb.	55	65	ARISTOL, oz.	1 85	2 00
Pignatelli,	35	40	Squill, lb.	13	15	ARSENIC, Donovan's sol., lb.	25	30
Grasso,	30	35	Stillinger, lb.	22	25	Fowler's sol., lb.	10	13
Y & S—Sticks, 6 to 1 lb., per lb.	27	30	Powdered, lb.	25	27	Iodide, oz.	50	55
" Purity, 100 sticks in box	75	75	Unicorn, lb.	38	40	White, lb.	6	7
" Purity, 200 sticks in box	1 50	1 50	Valerian, English, lb. true,	20	25	ATROPINE, Sulp. in 4 ozs. Soc.,	6 00	6 25
" Acme Pellets, 5 lb. tins	2 00	2 00	Virginia, Snake, lb.	40	45	oz.	35	40
" Lozenges, 5 lb. tins,	2 00	2 00	Yellow Dock, lb.	15	18	BISMUTH, Ammonia-citrate, oz.	35	40
" Tar, Licorice, and Tolu,			RUM, Bay, gal.	2 50	2 75	Iodide, oz.	50	55
5 lb. tins,	2 00	2 00	Essence, lb.	3 00	3 25	Salicylate, oz.	20	25
LUPULIN, oz.	30	35	SACCHARIN, oz.	1 25	1 50	Subcarbonate, lb.	1 80	2 00
LYCOPodium, lb.	70	80	SRED, Anise, Italian, sifted, lb.	13	15	Subnitrate, lb.	1 50	1 60
MACE, lb.	1 20	1 25	Star, lb.	35	40	BORAX, lb.	7	8
MANNA, lb.	1 60	1 75	Birdcock, lb.	30	35	Powdered, lb.	8	9
Moss, Iceland, lb.	9	10	Canary, bag or less, lb.	4	5	BROMINE, oz.	8	13
Irish, lb.	12	13	Caraway, lb.	10	13	CADMIUM, Bromide, oz.	20	25
MUSK, Tonquin, oz.	40	50	Cardamom, lb.	1 25	1 50	Iodide, oz.	45	50
NUTGALLS, lb.	21	25	Celery,	25	30	CAFFEINE, oz.	55	60
Powdered, lb.	25	30	Colchicum,	50	60	Citrate, oz.	45	50
NUTMEGS, lb.	1 00	1 10	Coriander, lb.	10	12	CALCIUM, Hypophosphite, lb.	1 50	1 60
NUX VOMICA, lb.	10	12	Cumin, lb.	15	20	Iodide, oz.	95	1 00
Powdered, lb.	25	27	Fennel, lb.	15	17	Phosphate, precip., lb.	35	38
OAKUM, lb.	12	15	Fenugreek, powdered, lb.	7	9	Sulphide, oz.	5	6
ONITMENT, Merc., lb. 1/2 and 1/2	70	75	Flax, cleaned, lb.	3 1/2	4	CERIUM, Oxalate, oz.	10	12
Citrine, lb.	45	50	Ground, lb.	4	5	CHINIDINE, oz.	15	18
PARALDEHYDE, oz.	20	22	Hemp, lb.	3 1/2	4	CHLORAL, Hydrate, lb.	1 25	1 30
PEPPER, black, lb.	12	13	Mustard, white, lb.	11	12	Croton,	75	80
Powdered, lb.	15	16	Powdered, lb.	15	20	CHLOROFORM, lb.	60	1 00
PITCH, black, lb.	3	4	Pumpkin,	25	30	CINCHONINE, sulphate, oz.	25	30
Bergundy, true, lb.	10	12	Quince, lb.	65	70	CINCHONIDINE, Sulph., oz.	15	20
PLASTER, Calcined, bbl. cash,	25	3 25	Rape, lb.	5	6	COCAINE, Mur., oz.	5 25	6 25
Adhesive, yd.	12	13	Strophanthus, oz.	50	55	CODEIA, 4 oz.	70	75
Belladonna, lb.	65	70	Worm, lb.	22	25	COLLODION, lb.	65	70
Galbanum Comp., lb.	80	85	SEIDLITZ MIXTURE, lb.	25	30	COPPER, Sulph., (Blue Vitriol) lb.	6	7
Lead, lb.	25	30	SOAP, Castile, Mottled, pure, lb.	10	12	Iodide, oz.	65	70
POPPY HEADS, per 100,	1 00	1 10	White, Conti's, lb.	15	16	COPPERAS, lb.	1	3
ROSIN, Common, lb.	2 1/2	3	Powdered, lb.	25	40	DIURETIC, oz.	1 60	1 65
White, lb.	3 1/2	4	Green (Sapo Viridis), lb.	25	25	ETHER, Acetic, lb.	75	80
RESORCIN, white, oz.	25	30	SPERMACELE, lb.	60	65	Sulphuric, lb.	40	50
ROCHELLE SALT, lb.	28	30	TURFENTINE, Chian, oz.	75	80	EXALGINE, oz.	1 00	1 10
ROOF, Aconite, lb.	22	25	Venice, lb.	10	12	HYOSCYAMINE, Sulp., crystals, gr.	25	30
Althea, cut, lb.	30	35	WAX, White, lb.	50	75	IODINE, lb.	4 75	5 50
Belladonna, lb.	25	30	Yellow,	40	45	IODOFORM, lb.	6 00	7 00
Blood, lb.	15	16	WOOD, Guaiac, rasped,	5	6	IODOL, oz.	1 40	1 50
Bitter, lb.	27	30	Quassia chips, lb.	10	12	IRON, by Hydrogen,	80	85
Blackberry, lb.	15	18	Red Saunders, ground, lb.	5	6	Carbonate, Precip., lb.	15	16
Burdock, crushed, lb.	18	20	Santal, ground, lb.	5	6	Sacch., lb.	30	35
Calamus, sliced, white, lb.	20	25				Chloride, lb.	45	55
Canada Snake, lb.	30	35				Sol., lb.	13	16
Cohosh, black, lb.	15	20				Citrate, U.S.P., lb.	90	1 00
Colchicum, lb.	40	45				And Ammon., lb.	70	75
Columbo, lb.	20	22				And Quinine, lb.	1 50	3 00
Powdered, lb.	25	30				Quin. and Stry., oz.	18	30
Coltsfoot, lb.	38	40				And Strychnine, oz.	13	15
Comfrey, crushed, lb.	20	25				Dialyzed, Solution, lb.	50	55
Curcuma, powdered, lb.	13	14				Ferrocyanide, lb.	55	60
Dandelion, lb.	15	18				Hypophosphites, oz.	25	30
Elecampane, lb.	15	20				Iodide, oz.	40	45
Galangal, lb.	15	18				Syrup, lb.	40	45
Gelsemium, lb.	22	25				Lactate, oz.	5	6
Gentian or Genitan, lb.	10	11				Pernitrate, solution, lb.	15	16
Ground, lb.	11	12				Phosphate scales, lb.	1 25	1 30
Powdered, lb.	13	15				Sulphate, pure, lb.	7	9
Ginger, African, lb.	18	20				Exsiccated, lb.	8	10
Po., lb.	20	22				And Potass. Tartrate, lb.	80	85
Jamaica, blebd., lb.	27	30				And Ammon. Tartrate, lb.	80	85
Po., lb.	30	35				LEAD, Acetate, white, lb.	13	15
Ginseng, lb.	4 50	4 75				Carbonate, lb.	7	8
Golden Seal, lb.	75	80				Iodide, oz.	35	40
Gold Thread, lb.	90	95				Red, lb.	7	9
Hellebore, white, powd., lb.	12	15				LIME, Chlorinated, bulk, lb.	4	5
Indian Hemp,	18	20				In packages, lb.	6	7
Ipecac, lb.	1 75	2 00				LITHIUM, Bromide, oz.	30	35
Powdered, lb.	2 00	2 25				Carbonate, oz.	30	35
Jalap, lb.	55	60				Citrate, oz.	25	30
Powdered, lb.	60	65				Iodide, oz.	50	55
Kava Kava, lb.	40	90				Salicylate, oz.	35	40
Licorice, lb.	12	15				MAGNESIUM, Calc., lb.	55	60
Powdered, lb.	13	15				Carbonate, lb.	18	20
Mandrake, lb.	13	18				Citrate, gran., lb.	35	40
Masterwort, lb.	16	40				Sulph. (Epsom salt), lb.	1 1/2	3
Oris, Florentine, lb.	30	35				MANGANESE, Black Oxide, lb.	5	7
Powdered, lb.	40	45				MENTHOL, oz.	40	45
Pareira Brava, true, lb.	40	45				MERCURY, lb.	75	80
Pink, lb.	40	45				Ammon (White Precip.),	1 25	1 30
Parsley, lb.	30	35				Chloride, Corrosive, lb.	85	90
Pleurisy, b.	20	25				Calomel, lb.	1 00	1 10
Poke, lb.	15	18				With Chalk, lb.	60	65

gists. All subscribers to the *British and Colonial Druggist* receive a copy of the diary free. Subscriptions should be forwarded to 42 Bishopsgate Without, London, E.C., England.

Moody's Great Bible Class.

Dwight L. Moody, the famous evangelist, has made a contract with *The Ladies' Home Journal*, by which he will conduct in that magazine a series of popular Bible studies in the form of a great national Bible class. It will be made into a regular and permanent department of the *Journal*, and is to be known as "Mr. Moody's Bible Class." The evangelist will personally lead his unique "Bible Class" each month in the exposition of some of the vital Bible truths, and will naturally appeal to a large circle of readers.

Frank Leslie's for December.

Frank Leslie's Popular Monthly was the first of the Christmas magazines to appear, and it is in every respect a beautiful number. Under the title "A Magic Island," Beatriz B. de Luna writes entertainingly of the picturesque Catalinas of California; Cornell University is described by Herbert Crombie Howe in the second paper of the profusely illustrated series on "American Universities and Colleges"; there is an interesting paper on pottery by Lawrence Mendenhall; an excellent Christmas story is contributed by Margaret E. Sangster; in "Canoeing Down the Rhine," Rochefort Calhoun takes the readers pleasantly from Basel to Heidelberg; Francis Wilson's new play, "Half a King," is described and pictured with portraits and views of the principal scenes. There are numerous short stories and poems, and an attractive young folks' department. More than the usual one hundred illustrations are given in this number. Frank Leslie's Publishing House, New York.

Pictures of the Authentic Historic Places in Palestine.

McClure's Magazine will begin publication, in the December number, of a series of views of the authentic historic places and monuments in Palestine. It is only by very recent exploration and study that many of the more significant of these places and monuments have been certainly identified, and not a few of them have never been pictured until now. Last spring the editor of *McClure's* organized a considerable expedition, and, accompanied by a photographer specially skilled and experienced in such work, made a tour of nearly the whole of Palestine, and took photographs of whatever of importance the latest and most authoritative investigations have definitely connected with Biblical incident and history. Special attention was given to the great ancient highway leading from Damascus to Jerusalem, and on down through Bethlehem

to Hebron; and many views were obtained of localities and objects of the first interest that will be entirely new to the public. They have been reproduced with great care, and will make one of the most attractive features of *McClure's* through the coming months.

A Much Congratulated Paper.

The Montreal *Witness*, this being its jubilee year, has been printing ever since last December a weekly page of the reminiscences of its early readers who still survive, many of which have been of fascinating interest, and all of which have been full of eager and hearty good will for the paper which has been to the writers a life-long counsellor and family friend. Here is one of the briefest and most practical of these contributions:

A FRIEND'S HINT.

(To the Editor of the *Witness*.)

SIR, I was first induced to take this noble paper by our minister from the pulpit, in denouncing bad literature and recommending good. He recommended the *Witness* among the best family reading for old or young. Shortly after I sent for the paper, and, although over a score of years ago, I have been taking it since with pleasure and profit. The price is very moderate, indeed. The *Witness* is a true Daniel, taking a firm stand for righteousness, temperance, and everything that makes for the good of man and the glory of the Creator. Now, I have a request to make of two of the highest professions in the land—the press and the clergy: viz., that the press shall kindly give this item room in their journals—the one to copy from the other, etc.; and that ministers of the Gospel shall speak of and recommend the *Witness* to their people, as it is such a power for good wherever known. JOHN W. MCKENZIE.

Glen Oak, Ont.

Seventy-first Birthday.

The *Youth's Companion* will celebrate its seventy-first birthday in 1897. Among the many attractive announcements of the *Companion* for the coming year is an article of exceptional value by Mr. Andrew Carnegie, on the "Habit of Thrift." Successful men in other walks of life will second Mr. Carnegie's paper with readable, practical articles based on their own experience, and valuable to the old as well as to the young.

Stories will be given by Ian Maclaren, Rudyard Kipling, Stephen Crane, Harold Frederic, and Clark Russell. Speaker Reed, Secretary Herbert, Senator Lodge, Hon. Carl Schurz, Postmaster-General Wilson, Dr. Lyman Abbott, Hon. Theodore Roosevelt—these are a few of the two hundred names that figure in the latest list of *Companion* contributors.

The non-partisan editorials and the Current Events and Nature and Science Departments are of especial interest to students and to all who wish to keep in

formed of the doings of the world. A reference book a title of *Companion*, well nigh invaluable, for its reputation is founded on twenty years of tested accuracy.

New subscribers sending \$1.75 to the *Companion* for 1897 will receive the *Companion* for the remainder of the year free, also the *Companion's* artistic twelve color Calendar, and the paper a full year to January, 1898. Illustrated Prospectus of the next volume will be sent free on request. Address, *The Youth's Companion*, 205 Columbus Ave., Boston, Mass.

Highly Indorsed

With possibly one exception, there is no "domestic" magazine more widely or favorably known than *The Housekeeper*, of Minneapolis, Minn. From the standpoint of practical helpfulness to the housewife it is without a peer.

It is published twice a month, each issue comprising twenty or more large pages. The subscription price is only fifty cents a year.

Here is what the Syracuse (N.Y.) *Herald* has to say about it:

"No better woman's magazine reaches *The Herald's* table than *The Housekeeper*, published at Minneapolis. It is astonishing that the publishers of this excellent semi-monthly can give such good material for the price (fifty cents a year). A woman understands woman's needs better than a man. *The Housekeeper* is edited by women, and the material given within its columns twice a month is just the quality and quantity the housewife and home-maker desires. Women are interested in their sister housekeepers, and *The Housekeeper* is filled with ideas contributed by its readers—ideas that will smooth the rough and rugged path of housekeeping. Covering every branch of home life as it does, *The Housekeeper* is an ideal woman's paper. It is ably edited, and is easily the best housekeeper's magazine of the present day."

In point of circulation *The Housekeeper* is the strongest periodical published in the entire west or south, and if there be any virtue in high character, good quality, and low price, it will continue to grow.

The publishers will send a sample copy free to applicants.

Drug Reports.

Canada.

The holiday trade is opening up fairly well, and druggists are looking forward to a harvest during the next few weeks. Money, unfortunately, is hard to collect, but there is always more or less difficulty in collecting this time of the year.

Glycerine, insect powder, balsam copiba, vanilla beans, atropia, are higher in price.

Iodide, Proto, oz.....	\$ 35	\$ 40	Iodide, oz.....	\$ 40	\$ 43	Geranium, oz.....	\$1 75	\$1 80
Bin., oz.....	25	30	Salicylate, lb.....	1 00	1 10	Rose, lb.....	3 20	3 50
Oxide, Red, lb.....	1 15	1 20	Sulphate, lb.....	2	5	Juniper berries (English), lb...	4 50	5 00
Pill (Blue Mass), lb.....	70	75	Sulphite, lb.....	8	10	Wood, lb.....	70	75
MILK SUGAR, powdered, lb....	30	35	SOMNAL, oz.....	85	90	Lavender, Chiris. Fleur, lb....	3 00	3 50
MORPHINE, Acetate, oz.....	1 90	1 95	SPIRIT NITRE, lb.....	35	65	Garden, lb.....	1 50	1 75
Muriate, oz.....	1 90	1 95	STRONTIUM, Nitrate, lb.....	18	20	Lemon, lb.....	1 90	2 00
Sulphate, oz.....	2 00	2 10	STRYCHNINE, crystals, oz....	80	85	Lemongrass, lb.....	1 50	1 60
PRUSIN, Saccharated, oz.....	35	40	SULFONAL, oz.....	40	42	Mustard, Essential, oz.....	60	65
PHENACETINE, oz.....	40	42	SULPHUR, Flowers of, lb.....	2½	4	Neroli, oz.....	4 25	4 50
PILOCARPINE, Muriate, grain...	35	38	Pure precipitated, lb.....	13	20	Orange, lb.....	2 75	3 00
PIPERIN, oz.....	1 00	1 10	TARTAR EMETIC, lb.....	50	55	Sweet, lb.....	2 75	3 00
PHOSPHORUS, lb.....	90	1 10	THYMOL (Thymic acid), oz....	55	60	Origanum, lb.....	65	70
POTASSA, Caustic, white, lb....	60	65	VERATRINE, oz.....	2 00	2 10	Patchouli, oz.....	80	85
POTASSIUM, Acetate, lb.....	35	40	ZINC, Acetate, lb.....	70	75	Pennyroyal, lb.....	2 50	2 75
Bicarbonate, lb.....	15	17	Carbonate lb.....	25	30	Peppermint, lb.....	2 75	3 00
Bichromate, lb.....	14	15	Chloride, granular, oz.....	13	15	Pimento, lb.....	2 60	2 75
Bitrat (Cream Tart.), lb.....	28	30	Iodide, oz.....	60	65	Rhodium, oz.....	80	85
Bromide, lb.....	65	70	Oxide, lb.....	13	60	Rose, oz.....	7 50	11 00
Carbonate, lb.....	12	13	Sulphate, lb.....	9	11	Rosemary, lb.....	70	75
Chlorate, Eng., lb.....	18	20	Valerianate, oz.....	25	30	Rue, oz.....	25	30
Powdered, lb.....	20	22	ESSENTIAL OILS.			Sandalwood, lb.....	5 50	7 50
Citrate, lb.....	70	75	OIL, Almond, bitter, oz.....	75	80	Sassafras, lb.....	75	80
Cyanide, lb.....	40	50	Sweet, lb.....	40	50	Savin, lb.....	1 60	1 75
Hypophosphites, oz.....	10	12	Amber, crude, lb.....	40	45	Spearmint, lb.....	3 75	4 00
Iodide, lb.....	4 00	4 10	Rec'd, lb.....	60	65	Spruce, lb.....	65	70
Nitrate, gran, lb.....	8	10	Anise, lb.....	3 75	3 90	Tansy, lb.....	4 25	4 50
Permanganate, lb.....	40	45	Bay, oz.....	50	60	Thyme, white, lb.....	1 80	1 90
Prussiate, Red, lb.....	50	55	Bergamot, lb.....	3 75	4 00	Wintergreen, lb.....	2 75	3 00
Yellow, lb.....	32	35	Cade, lb.....	90	1 00	Wormseed, lb.....	3 50	3 75
And Sod. Tartrate, lb.....	25	30	Cajuput, lb.....	1 00	1 70	Wormwood, lb.....	4 25	4 50
Sulphuret, lb.....	25	30	Capsicum, oz.....	60	65	FIXED OILS.		
PROPYLAMINE, oz.....	35	40	Caraway, lb.....	2 75	3 00	CASTOR, lb.....	11	12
QUININE, Sulph, bulk.....	25	32	Cassia, lb.....	3 30	3 50	COD LIVER, N.F., gal.....	2 25	2 30
Ozs., oz.....	30	35	Cedar.....	55	85	Norwegian, gal.....	3 00	3 25
QUINIDINE, Sulphate, ozs., oz...	16	20	Cinnamon, Ceylon, oz.....	2 75	3 00	COTTONSEED, gal.....	1 10	1 20
SALICIN, lb.....	75	4 00	Citronella, lb.....	80	85	LARD, gal.....	90	1 00
SANTONIN, oz.....	20	22	Clove, lb.....	1 10	1 20	LINSEED, boiled, gal.....	56	59
SILVER, Nitrate, cryst, oz.....	90	1 00	Copaiba, lb.....	1 75	2 00	Raw, gal.....	55	58
Fused, oz.....	1 00	1 10	Croton, lb.....	1 50	1 75	NEATSFOOT, gal.....	1 20	1 30
SODIUM, Acetate, lb.....	30	35	Cubeb, lb.....	2 50	3 00	OLIVE, gal.....	1 20	1 25
Bicarbonate, kgs., lb.....	2 75	3 00	Cumin, lb.....	5 50	6 00	Salad, gal.....	2 50	2 60
Bromide, lb.....	65	70	Eugenol, oz.....	20	25	PAIM, lb.....	12	13
Carbonate, lb.....	3	6	Eucalyptus, lb.....	1 50	1 75	SPEARMINT, gal.....	1 35	1 40
Hypophosphite, oz.....	10	12	Fennel, lb.....	1 60	1 75	TURPENTINE, gal.....	60	65
Hyposulphite, lb.....	3	6						

Quinine is easier.

Castor oil much advanced: advices from Calcutta indicate still higher price.

Opium and morphia firm.

Manufacturers of Kootenay Cure have advanced the price to old figures, wholesale \$12 per doz., retail \$1.50 per bottle.

Moth camphor balls will be about the same price in 1897 as in 1896.

Sulphate copper has advanced.

Carbolic acid a trifle higher.

Thymol shows an advance probable.

Jamaica sarsaparilla, lower.

From Schimmel & Co.'s report we glean the following in reference to essential oils:

On account of the large crop of anise seed in Russia the price of the oil is low, and likely to continue so.

Oil cassia has declined in price, a good deal of adulterated oil is offered, some samples containing only from 50 to 60 per cent. of pure oil.

Oil cloves is unprecedentedly low, the price at which it is sold to-day by the producers being only one-tenth of its price in 1875.

Oil bergamot will probably be reduced in price very shortly, as the reports from producing districts show a large yield.

Oil lemon remains at former figures. The season's crop has been favorable.

Oil peppermint. The yield of American oil is largely in excess of last year;

English oil, about average yield: Japanese oil, very large increase. Prices will probably decline.

Menthol is very low, the quotations being very much below those of last year. The production has been more than double the shipments of menthol from Japan during the first six months of this year, being 23,825 cetties.

England.

London, Eng., Nov. 27th, 1896.

There has been hardly so much trade done this month in chemicals and drugs. Cod-liver oil has not tended higher, in spite of the consuming period having arrived. Citric and tartaric acid, also cream of tartar, are easier, but carbolic has advanced. Belladonna and gentian roots are dearer. Cardamom seeds are scarce, and prices are rapidly advancing. Gamboge easier. Glycerin is firm: myrrh lower; opium quiet. Oils—caraway easier, cloves dull, peppermint advancing, star-aniseed easier. Otto—prices are now firmer. Vanilla will be offered at special auction. Santonin has advanced fractionally.

Isococaine—Benzoate of iso-ethyl-ecgonin, a quick local anaesthetic.

Soluble bismuth phosphate is a soluble preparation used as a remedy in cholera infantum.

The "hit" of the day in drug store advertising is that of placing where it will not fail to meet the eye a perfectly white card, in size, say, 6x8 or 8x10 inches, containing a brief, terse sentence, calculated to fix itself indelibly in the reader's memory. The epigram, of course, calls attention to some particular article.

The card must be spotless, of good quality, and be printed in the neatest style of the typographic art, with deep margins.

We would be pleased to receive orders for the printing of such cards from readers of the CANADIAN DRUGGIST.

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